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Senate

The Senate met at 9:30 a.m. and was called to order by the President pro tempore [Mr. THURMOND].

PRAYER

The Chaplain, Dr. Lloyd John Ogilvie, offered the following prayer:

Almighty God, all power and authority belongs to You. You hold the universe in Your hands and focus Your attention on the planet Earth. We humble ourselves before You, for You alone are Lord of all nations, and You have called our Nation to be a leader in the family of nations. By Your providence, You have brought to this Senate the men and women through whom You can rule wisely in soul-sized matters that affect the destiny of humankind. With awe and wonder at Your trust in them, the Senators enter executive session today to confront the issues of the Comprehensive Nuclear Test-Ban Treaty.

Grip their minds with three great assurances to sustain them especially today and next Tuesday: You are Sovereign of this land, and they are accountable to You; You are able to guide their thinking, speaking, and decisions if they will but ask You; and You will bring unity so that they may lead our Nation in its strategies of defense, and the world in its shared obligation to use nuclear power for creative and not destructive purposes.

O God of peace, hear our prayer, for You are our Lord and Savior. Amen.

PLEDGE OF ALLEGIANCE

The Honorable MIKE DEWINE, a Senator from the State of Ohio, led the Pledge of Allegiance, as follows:

I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

RECOGNITION OF THE ACTING MAJORITY LEADER

The PRESIDING OFFICER (Mr. DEWINE). The acting majority leader is recognized.

SCHEDULE

Mr. KYL. Mr. President, today the Senate will begin consideration of the Comprehensive Nuclear Test-Ban Treaty with debate taking place throughout the day. Debate time is limited to 14 hours and will resume at 9:30 a.m. on Tuesday, October 12. I encourage my colleagues to come to the floor to discuss this important issue.

As a reminder, cloture was filed on the conference report to accompany the Agriculture appropriations bill on Thursday, and by previous consent the Senate will proceed to that cloture vote on Tuesday at 5:30 p.m. It is hoped that the vote regarding the treaty can be stacked to follow the 5:30 vote.

I thank my colleagues for their attention.

PRIVILEGE OF THE FLOOR

Mr. KYL. Mr. President, I ask unanimous consent that Brad Sweet, staff assistant on the Government Affairs Subcommittee on International Security, Proliferation, and Federal Services be given floor privileges during consideration of the Comprehensive Nuclear Test-Ban Treaty.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. KYL. Mr. President, the Chairman of the Senate Foreign Relations Committee, Senator HELMS, has asked that I manage the time until he is able to arrive, and in that regard I would like to make an opening statement.

EXECUTIVE SESSION

COMPREHENSIVE NUCLEAR TEST-BAN TREATY

The PRESIDING OFFICER. The clerk will report the resolution of ratification.

The legislative clerk read as follows:
Resolved, (two-thirds of the Senators present concurring therein),

That the Senate advise and consent to the ratification of the Comprehensive Nuclear Test-Ban Treaty, opened for signature and signed by the United States at New York on September 24, 1996, including the following annexes and associated documents, all such documents being integral parts of and collectively referred to in this resolution as "Treaty", (contained in Senate Treaty Document 105-28):

(1) Annex 1 to the Treaty entitled "List of States Pursuant to Article II, Paragraph 28";

(2) Annex 2 to the Treaty entitled "List of States Pursuant to Article XIV";

(3) Protocol to the Comprehensive Nuclear Test-Ban Treaty.

(4) Annex 1 to the Protocol.

(5) Annex 2 to the Protocol.

Mr. KYL. Mr. President, let me just pose one unanimous-consent request before we begin. To the extent that it is possible with respect to people in the Chamber ready to make statements, I ask unanimous consent that the debate on the proposition be divided in a way that proponents and opponents speak in opposition to each other, one following the other.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from Arizona.

Mr. BIDEN addressed the Chair.

The PRESIDING OFFICER. The Senator from Delaware.

Mr. BIDEN. It has been raised whether or not that is a good idea. As I understand the unanimous-consent request, it is to the extent possible we will try to alternate between Democrat and Republican, opponents and proponents. That is the same as saying, with one exception, for and against. I do not expect that to mean that we

• This "bullet" symbol identifies statements or insertions which are not spoken by a Member of the Senate on the floor.



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would not engage each other in colloquy and debate so we don't just have statement after statement.

The PRESIDING OFFICER. The Senator from Arizona.

Mr. KYL. That is precisely why I framed it the way I did.

Mr. DORGAN. Reserving the right to object—

Mr. KYL. It would not be appropriate to say Republican and Democrat, since I know Senator SPECTER would like to speak not in opposition.

Mr. DORGAN. Mr. President, reserving the right to object, I hope the Senator would not put forth any unanimous-consent request. I hope we would simply have an agreement among the two leaders in the Chamber that they will alternate back and forth. The difficulty with a unanimous-consent agreement is you may get a circumstance where you have no one on one side and three or four speakers on the other side.

I think it is practical to manage it the way the Senator has suggested.

Mr. KYL. With the understanding that Senator BIDEN and I just reached, and the Senator just articulated, I withdraw the request, and I assume we can proceed in that fashion.

Mr. President, I rise today to explain why I strongly oppose the Comprehensive Test Ban Treaty that has been submitted to the Senate for its advice and consent.

I think the words of six distinguished Americans who formerly bore the responsibility for safeguarding our nation's security as Secretary of Defense frame the issue before the Senate quite well. In a letter to the majority leader this week, James Schlesinger, Dick Cheney, Frank Carlucci, Caspar Weinberger, Donald Rumsfeld, and Melvin Laird who served as Secretaries of Defense in the Reagan, Bush, Ford, and Nixon administrations, stated:

As the Senate weighs whether to approve the Comprehensive Test Ban Treaty (CTBT), we believe Senators will be obliged to focus on one dominant, inescapable result were it to be ratified: over the decades ahead, confidence in the reliability of our nuclear weapons stockpile would inevitably decline, thereby reducing the credibility of America's nuclear deterrent.

For this reason, these former Secretaries of Defense conclude that the CTBT is "incompatible with the Nation's international commitments and vital security interests . . . Accordingly, we respectfully urge you and your colleagues to preserve the right of this nation to conduct nuclear tests necessary to the future viability of our nuclear deterrent by rejecting approval of the present CTBT."

I couldn't agree more with the considered judgment of these distinguished Americans who have had the awesome responsibility of maintaining the U.S. nuclear deterrent throughout the cold war and beyond.

Before discussing some of the flaws of the CTBT and how it will undermine the credibility of our nuclear deterrent, a few words on the importance of

nuclear deterrence, and the limits of arms control I think are in order.

As my colleagues recall, during the cold war, the Soviet Union enjoyed a tremendous advantage in conventional military forces in Europe. The United States was able to offset this advantage in conventional forces, and to guarantee the security of Western Europe until the cold war ended peacefully, through the maintenance of a credible nuclear deterrent. Our nuclear "umbrella," as it is called, was extended to our allies in other parts of the world as well.

Since the end of the cold war, some have argued that nuclear deterrence is an outdated concept, and the U.S. no longer needs to retain a substantial nuclear weapons capability. However, deterrence is not a product of the cold war and has been around since the beginning of diplomacy and war. Over 2,500 years ago, the Chinese philosopher Sun Tzu wrote about the value of deterrence stating, "To win one hundred victories in one hundred battles is not the acme of skill. To subdue the enemy without fighting is the acme of skill."

Furthermore, the end of the cold war does not mean national security threats to the United States have evaporated. James Woolsey, President Clinton's first Director of Central Intelligence, aptly described the current security environment when he said, "We have slain a large dragon [the Soviet Union]. But we live now in a jungle filled with a bewildering variety of poisonous snakes."

Rogue nations like North Korea, Iran, and Iraq have weapons of mass destruction programs and are hostile to the United States. China is an emerging power whose relationship with the United States has been rocky at best. And Russia retains significant military capabilities, including over 6,000 strategic nuclear warheads.

The gulf war is an excellent case study of the continuing importance of nuclear deterrence in the post-cold-war world. In that conflict, the maintenance of a credible nuclear weapons capability, coupled with the understanding that it was possible that the United States would respond with nuclear weapons if attacked with other weapons of mass destruction, saved lives by deterring such an attack.

As my colleagues recall, Iraq possessed a large arsenal of chemical weapons that it had used against its Kurdish population, and against Iranian troops during the Iran-Iraq war in the 1980s. It is widely acknowledged that Iraq did not use chemical weapons against the United States-led coalition during the gulf war because we possessed a credible nuclear deterrent.

Prior to the start of the gulf war, U.S. leaders practiced the art of deterrence by issuing clear warnings to Saddam Hussein. Secretary of Defense Dick Cheney stated:

He [Saddam Hussein] needs to be made aware that the President will have available the full spectrum of capabilities. And were

Saddam Hussein foolish enough to use weapons of mass destruction, the U.S. response would be absolutely overwhelming and it would be devastating. He has to take that into consideration, it seems to me, before he embarks upon a course of using those kinds of capabilities.

President Bush also sent a strongly worded message to Saddam Hussein which said:

Let me state, too, that the United States will not tolerate the use of chemical or biological weapons. . . . The American people would demand the strongest possible response. You and your country will pay a terrible price if you order unconscionable acts of this sort.

Iraqi officials have confirmed that these statements deterred Baghdad from using chemical and biological weapons. In 1995, Foreign Minister Tariq Aziz reported to Rolf Ekeus, chairman of the U.N. commission charged with inspecting Iraqi weapons of mass destruction facilities, that Iraq was deterred from using its arsenal of chemical and biological weapons because the Iraqi leadership had interpreted Washington's threats of devastating retaliation as meaning nuclear retaliation.

Aziz's explanation is corroborated by a senior defector, General Wafic Al Sammarai, former head of Iraqi military intelligence, who stated:

Some of the Scud missiles were loaded with chemical warheads, but they were not used. We didn't use them because the other side had a deterrent force. I do not think Saddam was capable of taking a decision to use chemical weapons or biological weapons, or any other type of weapons against the allied troops, because the warning was quite severe, and quite effective. The allied troops were certain to use nuclear arms and the price will be too dear and too high.

Mr. President, as these statements show, a credible nuclear deterrent remains vitally important to our nation. I would hope that we could begin this debate on the CTBT by agreeing that a strong U.S. nuclear deterrent remains essential and that the Senate should reject any actions that would undermine the credibility of this deterrent.

To the second preliminary point, the fallacy of arms control:

Unfortunately, the CTBT negotiated by the Clinton administration would do just that. This is not surprising since the Clinton administration has sought to protect our national security with a fixation on arms control that columnist Charles Krauthammer aptly calls "Peace through Paper."

Of course, arms control is not a new idea. After all, in the year 1139, the Roman Catholic Church tried to ban the crossbow. Like so many other well-intentioned arms control measures, this one was doomed to failure from the start.

And who can forget the Kellogg-Briand treaty, ratified by the United States in 1929, that outlawed war as an instrument of national policy. This agreement and others spawned in its wake left the United States and Britain unprepared to fight and unable to deter World War II.

Yet despite these and many other notable failures, the Clinton administration still looks to arms control as the best way to safeguard our security. Under Secretary of State John Holum explained this philosophy during a speech in 1994, stating:

The Clinton Administration's policy aims to protect us first and foremost through arms control—by working hard to prevent new threats—and second, by legally pursuing the development of theater defenses for those cases where arms control is not yet successful.

The administration continues to cling tenaciously to the ABM Treaty, which prevents us from defending ourselves against missile attack, and numerous other arms control measures have been proposed by senior officials like Secretary of State Madeleine Albright, such as bans of shoulder-fired surface-to-air missiles, laser weapons, anti-satellite weapons, landmines, and even a proposal to limit the availability of assault rifles.

As George Will has said of the administration's arms control philosophy, "The designation 'superstition' fits because the faith of believers in arms control is more than impervious to evidence, their faith is strengthened even by evidence that actually refutes it."

There is enduring wisdom in President Reagan's statement of "Peace through strength."

In 1780, our Nation's first President, George Washington said, "There is nothing so likely to produce peace as to be well prepared to meet an enemy." Two hundred years later another President, Ronald Reagan, called this doctrine "Peace Through Strength."

I urge Senators to think about the enduring wisdom of these statements in the coming days as we debate the Comprehensive Test Ban Treaty and the negative effects its ratification would have on our Nation's security.

Let me turn now to a discussion of the CTBT's many flaws.

America's nuclear weapons are the most sophisticated in the world. This was the point of the letter of the former Secretaries of Defense. They pointed out that each one typically has thousands of parts, and over time in nuclear materials and high-explosive triggers in our weapons deteriorate, and we lack the experience predicting the effect of these changes.

Some of the materials used in our weapons, like plutonium, enriched uranium, and tritium, are radioactive materials that decay, and as they decay they also change the properties of other materials within the weapon. We lack experience predicting the effects of such aging on the safety and reliability of our weapons.

We did not design our weapons to last forever. The shelf life of our weapons was expected to be about 20 years. In the past, we did not encounter problems with aging weapons, because we were fielding new designs and older designs were retired. But under the CTBT, we could not field new designs

to replace older weapons, because testing would be required to develop new designs.

Remanufacturing components of existing weapons that have deteriorated also poses significant problems. Over time, manufacturing processes will change, some chemicals previously used in the production of our weapons have been banned by environmental regulations, and our documentation of the technical characteristics of older weapons, in some cases, is incomplete. Furthermore, as James Schlesinger—who formerly served as Secretary of defense and Secretary of Energy—has testified to the Senate, the plutonium pits in some of our weapons are approaching the end of this life-span. According to Dr. Schlesinger, one of our national laboratories estimates the pits used in some of our weapons will last 35 years. Since many of the pits used in the current arsenal are about 30 years old, this means that we will soon need to replace these pits. But without testing, we will never know if these replacement parts will work as their predecessors did.

As the former Director of the Lawrence Livermore National Laboratory, Dr. John Nuckolls said last month in a letter to me:

Key components of nuclear warheads are "aging" by radioactive decay and chemical decomposition and corrosion. Periodic remanufacture is necessary, but may copy existing defects and introduce additional defects. Some of the remanufactured parts may differ significantly from the original parts—due to loss of nuclear test validated personnel who manufactured the original parts, the use of new material and fabrication processes, and inadequate specification of original parts. There are significant risks of reducing stockpile reliability when remanufactured parts are involved in warhead processes where there are major gaps in our scientific understanding.

The fact is that, despite our technical expertise, there is much we still do not understand about our own nuclear weapons. As C. Paul Robinson, Director of the Sandia National Laboratory has said, "some aspects of nuclear explosive design are still not understood at the level of physical principles."

These gaps in our knowledge do not merely present a theoretical problem. As President Bush noted in a report to Congress in January 1993, "Of all U.S. nuclear weapons designs fielded since 1958, approximately one-third have required nuclear testing to resolve problems arising after deployment."

Furthermore, in 1987, Lawrence Livermore Lab produced a report titled "Report to Congress on Stockpile Reliability, Weapon Remanufacture, and the Role of Nuclear Testing" in which it extolled the importance of testing, noting that "... there is no such thing as a 'thoroughly tested' nuclear weapon." The report also goes on to state that of the one-third of weapons designs introduced into the stockpile since 1958 that have required testing to fix, "In three-fourths of these cases,

the problems were discovered only because of the ongoing nuclear testing." This report went on to say that "Because we frequently have difficulty understanding fully the effects of changes particularly seemingly small changes on the nuclear performance, nuclear testing has been required to maintain the proper functioning of our nation's deterrent."

Secretary of Defense Caspar Weinberger summed this point up nicely in 1986 when he said:

The irreducible fact is that nuclear testing is essential to providing for the safety and security of our warheads and weapons systems. It also is essential if we are to maintain their reliability. This is not a matter of conjecture, but a lesson learned through hard experience. For example, in the case of one nuclear system—the warhead for the Polaris [SLBM]—testing allowed us to fix defects that were suddenly discovered. Until corrected, these defects could have rendered the vast majority of weapons in our sea-based deterrent completely inoperable.

The importance of testing to the maintenance of any complex weapon or machine cannot be underestimated. As the six former Secretaries of Defense noted in this letter opposing the CTBT,

The history of maintaining complex military hardware without testing demonstrates the pitfalls of such an approach. Prior to World War II, the Navy's torpedoes had not been adequately tested because of insufficient funds. It took nearly two years of war before we fully solved the problems that caused our torpedoes to routinely pass harmlessly under the target or to fail to explode on contact. For example, at the Battle of Midway, the U.S. launched 47 torpedo aircraft, without damaging a single Japanese ship. If not for our dive bombers, the U.S. would have lost the crucial naval battle of the Pacific war.

The Clinton administration has proposed a program that it hopes will replace actual nuclear tests with computer simulations and a much greater emphasis on science-based experiments. It is called the Stockpile Stewardship Program. According to the Fiscal Year 2000 Stockpile Stewardship Plan Executive Overview, released by the Department of Energy in March this year:

The overall goal of the Stockpile Stewardship program is to have in place by 2010 . . . the capabilities that are necessary to provide continuing high confidence in the annual certification of the stockpile without the necessity for nuclear testing.

I support the Stockpile Stewardship Program because it will improve our knowledge about our nuclear weapons. But as former Secretary of State Henry Kissinger, former National Security Advisor Brent Scowcroft, and former CIA Director John Deutch said in a letter this week, "the fact is that the scientific case simply has not been made that, over the long term, the United States can ensure the nuclear stockpile without nuclear testing."

First, the Stockpile Stewardship Program faces tremendous technical challenges. As the Director of Sandia National Laboratories, Dr. Robinson has said, "the commercially available and

laboratory technologies of today are inadequate for the stockpile stewardship tasks we will face in the future. Another hundred-to-thousand-fold increase in capability from hardware and software combined will be required."

Dr. Victor Reis, the architect of the stewardship program, said this about it during a speech in Albuquerque:

Think about it—we are asked to maintain forever, an incredibly complex device, no larger than this podium, filled with exotic, radioactive materials, that must create, albeit briefly, temperatures and pressures only seen in nature at the center of stars; do it without an integrating nuclear test, and without any reduction in extraordinarily high standards of safety and reliability. And, while you're at it downsize the industrial complex that supports this enterprise by a factor of two, and stand up critical new manufacturing processes.

This within an industrial system that was structured to turn over new designs every fifteen years, and for which nuclear explosive testing was the major tool for demonstrating success.

Senior officials at the Department of Energy and our nuclear labs are generally careful in how they couch their remarks about the Stockpile Stewardship Program. They typically state that the stewardship program is the best approach to maintaining our weapons in the absence of testing. But they are also careful not to guarantee that, despite the unquestioned brilliance of the scientists, the Stockpile Stewardship Program will succeed in replacing testing.

In fact, the Stockpile Stewardship Program has already experienced setbacks. For example, the National Ignition Facility, which is the linchpin of the program, has recently fallen behind schedule and is over budget. It still faces a critical technical uncertainty about a major goal of its design: will it be able to achieve thermonuclear ignition?

Another problem with relying on computer simulation to replace testing is the increased risk of espionage. Former Lawrence Livermore National Lab Director John Nuckolls made this point in his letter to me as well: "Espionage is facilitated when U.S. progress is frozen, and classified information is being concentrated and organized in electronic systems." In short, in order to achieve the vast increases in computing power required for the stewardship program, much of the computer code required for the program will be written by hundreds of people at participating universities and colleges—in many cases by people who are not even American citizens.

Mr. President, the bottom line is that a credible nuclear deterrent is just too important to put all our eggs in the stewardship basket.

In addition to impairing the reliability of our nuclear arsenal, the CTBT will prevent us from making our nuclear weapons as safe as they can be. This is extraordinarily important.

Nuclear weapon safety has always been a paramount concern of the United States. Throughout the history

of our nuclear weapons program, we have made every effort to ensure that even in the most violent of accidents there would be the minimum chance of a nuclear explosion or radioactive contamination. The results of such an accident would be catastrophic.

That's why President Clinton's Secretary of Defense, Bill Cohen, opposed a test moratorium when he was a Senator. During debate on an amendment imposing a moratorium on testing, August 3, 1993, then-Senator Cohen said,

A vote to halt nuclear testing today is a vote to condemn the American people to live with unsafe nuclear weapons in their midst for years and years—indeed until nuclear weapons are eliminated. Not just a few unsafe nuclear weapons, but a nuclear stockpile in which most of the weapons do not have critical safety features.

I digress a moment to note when he was asked about this statement this week, now-Secretary Cohen said, we have replaced those weapons with weapons in our inventory now that are safe.

I know defense Secretary Cohen would agree, that is not a correct statement. All of the weapons in our current inventory lack one or more of the essential safety features that we have been talking about here.

As the Director of Los Alamos National Lab, Dr. Sig Hecker, indicated in a letter to me in 1997, "with a CTBT it will not be possible to make some of the potential safety improvements for greater intrinsic warhead safety that we considered during the 1990 time frame." The reason is that nuclear tests must be done in many cases to confirm that once new safety features are incorporated, the weapons are reliable and still operate as intended. The CTBT makes it pointless to try to invent new, improved safety features because they could not be adopted without nuclear testing. Even worse, the CTBT eliminates the possibility of improving the safety of current weapons through the incorporation of existing, well understood safety features.

Safety features include items such as insensitive high explosive and fire resistant pits. Insensitive high explosive in the primary of a nuclear weapon is intended to prevent the premature detonation of the high explosive trigger, resulting in a potential nuclear explosion should the weapon be subjected to unexpected stress, like being dropped or penetrated by shrapnel or a bullet. Fire resistant pits are intended to prevent the dispersal of plutonium resulting in radioactive contamination of an area should the weapon be exposed to a fire, such as an accidental blaze during loading of a weapon on an aircraft.

Unfortunately, few people know that many of our current weapons do not contain all the safety features that already have been invented by our National Laboratories. Only one of the nine weapons in the current stockpile incorporates all six available safety features. In fact, three of the weapons in the stockpile—the W78 warhead,

which is used on the Minuteman III ICBM, and the W76 and W88 warheads, which sit atop missiles carried aboard Trident submarines—incorporate only one of the six safety features. Another weapon, the W62 warhead, does not have any of the six safety features incorporated into its design.

The bottom line is that a ban on nuclear testing prevents us from making our weapons as safe as we know how to make them and creates a disincentive to making such safety improvements.

Mr. President, another point I think is extraordinarily important as we debate this CTBT is that the purpose of the treaty cannot be achieved by its ratification. In addition to undermining our nuclear deterrent, as I have just spoken to, the treaty will not achieve its goal of halting nuclear proliferation.

Supporters of the treaty say the United States must lead by example, and that by halting nuclear tests ourselves, we will persuade others to follow our example. Yet the history of the last eight years shows this theory is false. Since the United States halted testing in 1992, India, Pakistan, Russia, China, and France have all conducted tests.

Furthermore, the CTBT will not establish a new international norm against nuclear weapons testing or possession. The Nuclear Nonproliferation Treaty, the NPT ratified by 185 countries has already established such a norm. The NPT calls for parties to the treaty, other than the five declared nuclear powers—the United States, the United Kingdom, Russia, China, and France—to pledge not to pursue nuclear weapons programs.

Yet North Korea and Iraq, to name two who are parties to the NPT, have, of course, violated it. They have pursued nuclear weapons programs despite their solemn international pledge never to do so. The CTBT will not add anything useful to the international nonproliferation regime since these nations, in effect, would be pledging not to test the nuclear weapons they have already promised never to have under the NPT. So much for the international norm.

Nor will the CTBT pose a significant impediment to the acquisition of nuclear weapons by rogue nations since, although nuclear testing is essential to maintaining the sophisticated nuclear weapons in the U.S. arsenal today, it is not required to develop relatively simple first-generation nuclear devices, like those needed or being developed by Iran and Iraq. For example, the United States bomb dropped on Hiroshima was never tested, and the Israeli nuclear arsenal has been constructed without testing.

Incidentally, the Clinton administration does not dispute this point. In Senate testimony in 1997, CIA Director George Tenet stated:

Nuclear testing is not required for the acquisition of a basic nuclear weapons capability (i.e. a bulky, first-generation device

with high reliability but low efficiency.) Tests using high-explosive detonations only ([with] no nuclear yield) would provide reasonable confidence in the performance of a first generation device. Nuclear testing becomes critical only when a program moves beyond basic designs to incorporate more advanced concepts.

I believe Director Tenet is absolutely correct, based on the letter of the Secretary of Defense that I quoted earlier. We can't afford to underestimate the weapon described by Director Tenet—a "bulky, first generation device with high reliability but low efficiency" is a lot like the bomb we dropped on Hiroshima to change world history. It is a strategic weapon—if North Korea or Iran were able to deploy such a weapon, they could—to put it mildly—severely reduce our ability to protect our interests in East Asia or the Persian Gulf. These are weapons that would be designed to intimidate and kill large numbers of people in cities, not destroy purely military targets, as the United States weapons are designed to do.

Another problem with the CTBT is that it is totally unverifiable. It cannot be verified despite the vast array of expensive sensors and detection technology being established under the treaty, so it will be possible for other nations to conduct militarily significant nuclear testing with little or no risk of detection. Effective verification requires high confidence that militarily significant cheating will be detected in a timely manner. The United States cannot now, and will not in the near future, be able to confidently detect and identify militarily significant nuclear tests of one kiloton or less by the way, that is roughly 500 times larger than the blast which destroyed the Murrah Building in Oklahoma City. We cannot detect a test of that magnitude.

What is "militarily significant" nuclear testing? Definitions of the term might vary, but I think we'd all agree that any nuclear test that gives a nation information to maintain its weapons or to develop newer, more effective weaponry is militarily significant.

In the course of U.S. weapons development, nuclear tests with yields between 1 kiloton and 10 kilotons have generally been large enough to provide "proof" data on new weapons designs. Other nations might have weaponry that could be assessed at even lower yields. As we know, crude but strategically significant weapons, like the bomb we dropped on Hiroshima, don't need to be tested at all. But for the sake of argument, let's be conservative and assume that other nations would also need to conduct tests at a level above 1 kiloton to develop a new nuclear weapon design.

The verification system of the CTBT is supposed to detect nuclear blasts above 1 kiloton, so it would seem at first glance that it will be likely that most cheaters would be caught. But look at the Treaty's fine print—the CTBT's International Monitoring System will be able to detect tests of 1 kilotons or more if they are noneva-

sive. This means that the cheater will be caught only if he does not try to hide his nuclear test.

But what if he does want to hide it? What if he conducts his test evasively?

It is a very simple task for Russia, China, or others to hide their nuclear tests. One of the best known means of evasion is detonating the nuclear device in a cavity such as a salt dome or a room mined below ground. Because it surrounds the explosion with empty space, this technique—called decoupling—reduces the noise, or the seismic signal, of the nuclear detonation.

The signal of a decoupled test is so diminished—by as much as a factor of 70—that it will not be possible to reliably detect it. For example, a 1,000-ton hidden test would have a signal of a 14-ton open test. This puts the signal of the illicit test well below the threshold of detection.

Decoupling is a well-known technique and is technologically simple to achieve. In fact, it is quite possible that Russia and China have continued to conduct nuclear testing during the past 7 years, while the United States has refrained from doing so. They could have done so by decoupling.

There are also other means of cheating that can circumvent verification. One is open-ocean testing. A nation could put a device on a small boat or barge, tow it into the ocean, and detonate it anonymously. It would be virtually impossible to link the test to the cheater.

While evasive techniques are expensive and complex, the costs are relatively low compared to the expense of a nuclear weapons program, and no more complicated than weapons design. Further, established nuclear powers are well positioned to conduct clandestine testing to assure the reliability and undertake at least modest upgrades of their arsenals. Russia and China do not have good records on compliance with arms control and non-proliferation commitments. In addition, according to the Washington Times, United States intelligence agencies believe China conducted a small underground nuclear test in June and Russia is believed to have conducted a nuclear test earlier this month. While neither country has ratified the CTBT, both have signed the treaty and have promised to adhere to a testing moratorium. Again, so much for the norm.

The bottom line is that a determined country has several means to conceal its weapons tests and the CTBT is not effectively verifiable.

Let me stress here that my assessment is not based on opinions. Our inability to verify a whole range of nuclear testing is well-known and has been affirmed by the U.S. Intelligence Community. As the Washington Post reported earlier this week, our intelligence agencies lack the ability to confidently detect low-yield tests. We would be irresponsible in the extreme to ratify an unverifiable arms control

treaty—especially when that treaty will inevitably reduce our confidence in our own nuclear deterrent.

President Clinton's first Director of the Central Intelligence Agency, James Woolsey, summed up the problems with verification of the treaty stating in Senate testimony that,

I believe that a zero-yield Comprehensive Test Ban Treaty is extraordinarily difficult, to the point of near impossibility—and possibly to the point of impossibility—to verify from afar.

In addition to the negative consequences that would result from treaty ratification, I would also point out that this accord is very poorly crafted. The CTBT is weakest at its very foundation—it actually fails to say what it bans. Nowhere in its 17 articles and 2 annexes are the terms "nuclear weapon test explosion" or "nuclear explosion" defined or quantified and these are the terms used in the treaty's basic obligations.

Acting Under Secretary of State John Holum admitted this point in responses to questions for the record on June 29 of this year stating:

The U.S. decided at the outset of negotiations not to seek international agreement on a definition of "nuclear weapon test explosion" in the Treaty text. The course of negotiations confirmed our judgment that it would have been extremely difficult, and possibly counterproductive, to specify in technical terms what is prohibited by the Treaty.

May I read that again:

The course of negotiations confirmed our judgment that it would have been extremely difficult, and possibly counterproductive, to specify in technical terms what is prohibited by the Treaty.

But another nation might choose to apply a less restrictive definition and conduct very low-yield testing, what we call hydronuclear testing. While the United States interprets the treaty to ban all nuclear explosives testing—that is why they call it a zero ban test—other nations could conduct very low-yield testing, as I said, which we could not verify but which they would consider in compliance with the treaty. This so-called hydronuclear testing is very useful to nuclear weapons programs by helping improve the understanding of fundamental nuclear weapons physics, develop new weapons concepts, ascertain existing weapons' reliability, and exercise the skills of scientists, engineers, and technicians. The nuclear energy released in a hydronuclear test can be less than the equivalent released by four pounds of conventional high explosives. This is virtually nothing, and such a low-yield test would almost certainly escape detection.

This is where the treaty's vagueness is actually harmful to our interests. Even if we were able to detect it, the nation conducting a hydronuclear test could simply argue that it was legal under the treaty. And they would have the historical CTBT negotiating record on their side. Many drafts of the CTBT

prior to the Clinton administration allowed for low-yield "permitted experiments."

The verification regime of the CTBT—centered around the International Monitoring System, or IMS—will not be able to detect tests with far greater yields than hydronuclear tests. These tests can be conducted with virtually no risk of detection by either the IMS system or U.S. technical means.

There is much more to say about this treaty, but I believe I have outlined the primary reasons why the only prudent course for the Senate is to reject the CTBT. It will jeopardize rather than enhance our national security. It will undermine our vital nuclear deterrent by jeopardizing the reliability of our nuclear stockpile. It will prevent us from making our weapons as safe as they can be. It will not stop nuclear proliferation, and it is not verifiable. It is not worthy of Senate approval.

The PRESIDING OFFICER (Mr. GORTON). The Senator from Delaware.

Mr. BIDEN. Mr. President, I am anxious to respond point by point to my friend. I suggest, to believe his arguments, as the old saying goes, requires the suspension of disbelief. I find them to be well intended but half true. I will be very specific about each one of them, beginning with this notion of the value of deterrence.

I find it fascinating, my colleagues talk about these other nations can have a Hiroshima-type bomb and build without testing and that would radically affect our security; yet we cannot rely in the future on our certainty of 6,000 sophisticated nuclear weapons in the stockpile. I urge my friends to read today's New York Times and Washington Post where our allies are apoplectic about the fact my colleagues are going to reject this treaty.

The absolute notion that this idea is—don't let them kid you about this debate, folks, anybody watching this. You do not have to be a nuclear scientist to understand. You do not have to be a sophisticated foreign policy specialist to grasp what is at stake.

Think of it this way when they tell you the security of our nuclear stockpile is going to become so unreliable over time, that, as Dr. Schlesinger has said and my friend from Arizona has alluded, our enemies are going to know we do not have confidence in it and that is going to embolden them, and our allies such as Germany and Japan are going to go nuclear because they cannot count on us.

That is fascinating. Why did all of our allies sign and ratify this treaty? Why are they apoplectic about the prospect that we will not sign this treaty? I ask my colleagues when is the last time they can remember the Prime Minister of Great Britain or the President of France saying publicly: My Lord, I hope the Senate doesn't do that.

You cannot have it both ways. This is an argument that I find absolutely pre-

posterous. Although one can technically make it, it does require the suspension of disbelief in order to arrive at that conclusion.

One has to be an incredible pessimist to conclude that the 6,000 nuclear weapons configured in nine different warheads are going to atrophy after spending \$45 billion over the next 10 years, and after having been able to certify without testing for the last 3 years that it is in good shape, that some nation is going to say: We got them now, guys; I know they don't believe their system is adequate; maybe one of those bombs won't go off, maybe 10 of them, maybe 100 of them, maybe 1,000 of them, maybe 3,000 of them.

We still have 3,000 left. Back when the Senator from Nebraska and I were kids and Vietnam was kicking up, we used to see bumper stickers: One atom bomb can ruin your day.

I am going to go into great detail on every point my friend raised and talk about, for example, the idea we cannot modernize these weapons when we find a defect; we cannot deal with them without testing.

Dr. Garwin yesterday—one of the most brilliant scientists we have had, who has been involved in this program since 1950—says, you can replace the whole physics package without changing.

By the way, I am going to yield to my friend from Pennsylvania.

Names are mentioned here: Dr. Robinson, of Sandia; Victor Reis, the architect of the program, whom I spent 2½ hours with the other day. They do not tell you the end of the sentence. The end of the sentence is: They both are for this treaty. They both are for this treaty, along with 32 Nobel laureates in physics. I ask unanimous consent that the list be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

A LETTER FROM PHYSICS NOBEL LAUREATES
To Senators of the 106th Congress:

We urge you to ratify the Comprehensive Test Ban Treaty.

The United States signed and ratified the Limited Test Ban Treaty in 1963. In the years since, the nation has played a leadership role in actions to reduce nuclear risks, including the Non-Proliferation Treaty extension, the ABM Treaty, STARTs I and II, and the Comprehensive Test Ban Treaty negotiations. Fully informed technical studies have concluded that continued nuclear testing is not required to retain confidence in the safety, reliability and performance of nuclear weapons in the United States' stockpile, provided science and technology programs necessary for stockpile stewardship are maintained.

The Comprehensive Test Ban Treaty is central to future efforts to halt the spread of nuclear weapons. Ratification of the Treaty will mark an important advance in uniting the world in an effort to contain and reduce the dangers of nuclear arms. It is imperative that the CTBT be ratified.

Philip W. Anderson, Princeton University, 1977 Nobel Prize; Hans A. Bethe, Cornell University, 1967 Nobel Prize; Nicolaas Bloembergen, Harvard University 1981 Nobel Prize; Owen Chamber-

lain, UC, Berkeley, 1959 Nobel Prize; Steven Chu, Stanford University, 1997 Nobel Prize; Leon N. Cooper, Brown University, 1972 Nobel Prize; Hans Dehmelt, University of Washington, 1989 Nobel Prize; Bal L. Fitch, Princeton University, 1980 Nobel Prize; Jerome Friedman, MIT, 1990 Nobel Prize; Donald A. Glaser, UC, Berkeley, 1960 Nobel Prize; Sheldon Glashow, Harvard University, 1979 Nobel Prize; Henry W. Kendall, MIT, 1990 Nobel Prize; Leon M. Lederman, Illinois Institute of Technology, 1988 Nobel Prize; David M. Lee, Cornell University, 1996 Nobel Prize; T.D. Lee, Columbia University, 1957 Nobel Prize; Douglas D. Osheroff, Stanford University 1996 Nobel Prize; Arno Penzias, Bell Labs, 1978 Nobel Prize; Martin L. Perl, Stanford University, 1995 Nobel Prize; William Phillips, Gaithersburg, 1997 Nobel Prize; Norman F. Ramsey, Harvard, 1989 Nobel Prize; Robert C. Richardson, Cornell University, 1996 Nobel Prize; Burton Richter, Stanford University, 1976 Nobel Prize; Arthur L. Schawlow, Stanford University, 1981 Nobel Prize; J. Robert Schrieffer, Florida State University, 1972 Nobel Prize; Mel Schwartz, Columbia University, 1988 Nobel Prize; Clifford G. Shull, MIT, 1994 Nobel Prize; Joseph H. Taylor, Jr., Princeton University, 1993 Nobel Prize; Daniel C. Tsui, Princeton, 1998 Nobel Prize; Charles Townes, UC, Berkeley, 1964 Nobel Prize; Steven Weinberg, Univ. of Texas, Austin, 1979 Nobel Prize; Robert W. Wilson, Harvard-Smithsonian, 1978 Nobel Prize; Kenneth G. Wilson, Ohio State University, 1982 Nobel Prize.

Mr. BIDEN. Five of the last six Chairmen of the Joint Chiefs of Staff are for this treaty, along with people such as Paul Nitze of the Reagan administration, Stansfield Turner, Charles Curtis, and so on. I ask unanimous consent that a list of those in support of the treaty be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

PROMINENT INDIVIDUALS AND NATIONAL
GROUPS IN SUPPORT OF THE CTBT

CURRENT CHAIRMAN AND FORMER CHAIRMEN OF
THE JOINT CHIEFS OF STAFF

General Hugh Shelton, Chairman of the Joint Chiefs of Staff.

General John Shalikashvili, former Chairman of the Joint Chiefs of Staff.

General Colin Powell, former Chairman of the Joint Chiefs of Staff.

General David Jones, former Chairman of the Joint Chiefs of Staff.

Admiral William Crowe, former Chairman of the Joint Chiefs of Staff.

FORMER MEMBERS OF CONGRESS

Senator John C. Danforth.

Senator J. James Exon.

Senator Nancy Kassebaum Baker.

Senator Mark O. Hatfield.

Senator John Glenn.

Representative Bill Green.

Representative Thomas J. Downey.

Representative Michael J. Kopetski.

Representative Anthony C. Beilenson.

Representative Lee H. Hamilton.

DIRECTORS OF THE THREE NATIONAL
LABORATORIES

Dr. John Browne, Director of Los Alamos National Laboratory.

Dr. Paul Robinson, Director of Sandia National Laboratory.

Dr. Bruce Tarter, Director of Lawrence Livermore National Laboratory.

OTHER PROMINENT NATIONAL SECURITY OFFICIALS

Ambassador Paul H. Nitze, arms control negotiator, Reagan Administration.

Admiral Stansfield Turner, former Director of the Central Intelligence Agency.

Charles Curtis, former Deputy Secretary of Energy.

OTHER PROMINENT MILITARY OFFICERS

General Eugene Habiger, former Commander-in-Chief of Strategic Command.

General John R. Galvin, Supreme Allied Commander, Europe.

Admiral Noel Gayler, former Commander, Pacific.

General Charles A. Horner, Commander, Coalition Air Forces, Desert Storm, former Commander, U.S. Space Command.

General Andrew O'Meara, former Commander U.S. Army Europe.

General Bernard W. Rogers, former Chief of Staff, U.S. Army; former NATO Supreme Allied Commander.

General William Y. Smith, former Deputy Commander, U.S. Command, Europe.

Lt. General Julius Becton.

Lt. General John H. Cushman, former Commander, I Corps (ROK/US) Group (Korea).

Lt. General Robert E. Pursley.

Vice Admiral William L. Read, former Commander, U.S. Navy Surface Force, Atlantic Command.

Vice Admiral John J. Shanahan, former Director, Center for Defense Information.

Lt. General George M. Seignious, II, former Director Arms Control and Disarmament Agency.

Vice Admiral James B. Wilson, former Polaris Submarine Captain.

Maj. General William F. Burns, JCS Representative, INF Negotiations, Special Envoy to Russia for Nuclear Dismantlement.

Rear Admiral Eugene J. Carroll, Jr., Deputy Director, Center for Defense Information.

Rear Admiral Robert G. James.

OTHER SCIENTIFIC EXPERTS

Dr. Hans Bethe, Nobel Laureate, Emeritus Professor of Physics, Cornell University; Head of the Manhattan Project's theoretical division.

Dr. Freeman Dyson, Emeritus Professor of Physics, Institute for Advanced Study, Princeton University.

Dr. Richard Garwin, Senior Fellow for Science and Technology, Council on Foreign Relations; consultant to Sandia National Laboratory, former consultant to Los Alamos National Laboratory.

Dr. Wolfgang K.H. Panofsky, Director Emeritus, Stanford Linear Accelerator Center, Stanford University.

Dr. Jeremiah D. Sullivan, Professor of Physics, University of Illinois at Urbana-Champaign.

Dr. Herbert York, Emeritus Professor of Physics, University of California, San Diego; founding director of Lawrence Livermore National Laboratory; former Director of Defense Research and Engineering, Department of Defense.

Dr. Sidney D. Drell, Stanford Linear Accelerator Center, Stanford University.

MEDICAL AND SCIENTIFIC ORGANIZATIONS

American Association for the Advancement of Science.

American Medical Students Association/Foundation.

American Physical Society.

American Public Health Association.

American Medical Association.

PUBLIC INTEREST GROUPS

20/20 Vision National Project.

Alliance for Nuclear Accountability.

Alliance for Survival.

Americans for Democratic Action

Arms Control Association.

British American Security Information Council.

Busiesss Executives for National Security.

Campaign for America's Future.

Campaign for U.N. Reform.

Center for Defense Information.

Center for War/Peace Studies (New York, NY).

Council for a Livable World.

Council for a Livable World Education Fund.

Council on Economic Priorities.

Defenders of Wildlife.

Demilitarization for Democracy.

Economists Allied for Arms Reduction (ECAAR).

Environmental Defense Fund.

Environmental Working Group.

Federation of American Scientists.

Fourth Freedom Forum.

Friends of the Earth.

Fund for New Priorities in America.

Fund for Peace.

Global Greens, USA.

Global Resource Action Center for the Environment.

Greenpeace, USA.

The Henry L. Stimson Center.

Institute for Defense and Disarmament Studies (Saugus, MA).

Institute for Science and International Security.

International Association of Educators for World Peace (Huntsville, AL).

International Physicians for the Prevention of Nuclear War.

International center.

Izaak Walton League of America.

Lawyers Alliance for World Security.

League of Women Voters of the United States.

Manhattan Project II.

Maryknoll Justice and Peace Office.

National Environmental Coalition of Native Americans (NECONA).

National Environmental Trust.

National Commission for Economic Conversion and Disarmament.

Natural Resources Defense Council.

Nuclear Age Peace Foundation.

Nuclear Control Institute.

Nuclear Information & Resource Service.

OMB Watch.

Parliamentarians for Global Action.

Peace Action.

Peace Action Education Fund.

Peace Links.

PeacePAC.

Physicians for Social Responsibility.

Plutonium Challenge.

Population Action Institute.

Population action International.

Psychologists for Social Responsibility.

Public Citizen.

Public Education Center.

Safeworld.

Sierra Club.

Union of Concerned Scientists.

United States Servas, Inc..

Veterans for Peace.

Vietnam Veterans of America Foundation.

Volunteers for Peace, Inc.

War and Peace Foundation.

War Resisters League.

Women Strike for Peace.

Women's Action for New Directions.

Women's Legislators Lobby of WAND.

Women's International League for Peace and Freedom.

World Federalist Association.

Zero Population Growth.

RELIGIOUS GROUPS

African Methodist Episcopal Church.

American Baptist Churches, USA.

American Baptist Churches, USA, National Ministries.

American Friends Service Committee.

American Jewish Congress.

American Muslim Council.

Associate General Secretary for Public Policy, National Council of Churches.

Catholic Conference of Major Superiors of Men's Institutes.

Church Women United.

Coalition for Peace and Justice.

Columbian Fathers' Justice and Peace Office.

Commission for Women, Evangelical Lutheran Church in America.

Covenant of Unitarian Universalist Pagans.

Christian Church (Disciples of Christ) in the United States and Canada.

Christian Methodist Episcopal Church.

Church of the Brethren, General Board.

Division of Church in Society, Evangelical Lutheran Church in America.

Division for Congressional Ministries, Evangelical Lutheran Church in America.

Eastern Archdiocese, Syrian Orthodox Church of Antioch.

The Episcopal Church.

Episcopal Peace Fellowship, National Executive Council.

Evangelicals for Social Action.

Evangelical Lutheran Church in America.

Fellowship of Reconciliation.

Friends Committee on National Legislation.

Friends United Meeting.

General Board Members, Church of the Brethren.

General Board of Church and Society, United Methodist Church.

General Conference, Mennonite Church.

General Conference of the Seventh Day Adventist Church.

Jewish Peace Fellowship.

Lutheran Office for Governmental Affairs, Evangelical Lutheran Church in America.

Mennonite Central Committee.

Mennonite Central Committee, U.S.

Mennonite Church.

Methodists United for Peace with Justice.

Missionaries of Africa.

Mission Investment Fund of the ELCA, Evangelical Lutheran Church in America.

Moravian Church, Northern Province.

National Council of Churches.

National Council of Churches of Christ in the USA.

National Council of Catholic Women.

National Missionary Baptist Convention of America.

NETWORK: A National Catholic Social Justice Lobby.

New Call to peacemaking.

Office for Church in Society, United Church of Christ.

Orthodox Church in America.

Pax Christi.

Presbyterian Church (U.S.A.).

Presbyterian Peace Fellowship.

Progressive National Baptist Convention, Inc.

Religious Action Center of Reform Judaism.

The Shalom Center.

Sojourners.

Union of American Hebrew Congregations.

United Church of Christ.

United Methodist Church.

United Methodist Council of Bishops.

Unitarian Universalist Association.

Washington Office, Mennonite Central Committee.

Women of the ELCA, Evangelical Lutheran Church in America.

Sources: Coalition to Reduce Nuclear Dangers and Statement by President Clinton, 7/20/99.

Mr. BIDEN. Mr. President, this idea that the stockpile is not going to be reliable, that you can't—have thousands of parts, and the Russians have missiles with bombs with only 100 parts, and that has some significance. I have said it before.

I will yield now. I used to practice law with a guy named Sidney Balick—a good trial lawyer. Every time he would start a jury trial, he would start off by saying: I want you to take a look at my client. I want you to look at him. They're going to tell you he's not such a good looking guy. He's not. They're going to tell you you would not want to invite him home for dinner to meet your daughter. I wouldn't either. They're going to tell you—and he would go on like that. But he would say: I want you to keep your eye on the ball. Keep your eye on the ball. Follow the bouncing ball. Did he kill Cock Robin? That is the question.

The question is, At the end of the day, if we reject this treaty, are we better off in terms of our strategic interest and our national security or are we better off if we accept and ratify the treaty that all our allies have ratified? Which is better? Keep your eye on the ball.

I will respond, as I said, in due time to every argument my friend has made, from "the safety features argument" to "the purpose can't be achieved" to "nations that don't have sophisticated weapons are going to be able to cheat," and so on and so forth. But in the meantime, out of a matter of comity, which is highly unusual, because I should do a full-blown opening statement, I will yield to my friend from Pennsylvania because he has other commitments. Then I will come back to a point-by-point rebuttal of the statement by my friend from Arizona.

How much time is the Senator seeking?

Mr. SPECTER. I think I can do it in 20 minutes. It might take a little longer.

Mr. BIDEN. It can't take any longer. I will yield 20 minutes to the Senator.

PRIVILEGE OF THE FLOOR

I ask unanimous consent that Patrick Cottrell be able to be on the floor for the remainder of this debate.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from Pennsylvania.

Mr. SPECTER. I thank the Senator from Delaware for yielding me time at this time.

Mr. President, this debate on the Comprehensive Test Ban Treaty may one day be classified as a historic debate. The issue which is being framed today, in my opinion, is the most important treaty issue, international issue which has faced this Senate since the Treaty of Versailles, which was rejected by the Senate, setting off an era of isolationism and, for many, enormous international problems resulting in World War II.

It is my hope this treaty will be ratified. I do not expect it to be ratified in

a vote on Tuesday because the picture is clear that there are not enough Senators to provide the two-thirds constitutional balance. But it is my hope before that scheduled vote arises on Tuesday that we will have worked out an operation to defer the vote on this treaty.

I agree with my distinguished colleague from Arizona, Senator KYL, that a nuclear deterrent is vital for the national security of the United States. When he cites the Comprehensive Test Ban Treaty as being negotiated by the Clinton administration—really an idea of the Clinton administration—I would point to the statements of President Eisenhower more than 40 years ago when he articulated the national interest in a comprehensive test ban treaty.

In a speech on August 22, 1958, President Eisenhower said this:

The United States . . . is prepared to proceed promptly to negotiate an agreement with other nations which have tested nuclear weapons for the suspension of nuclear weapons tests. . . .

In a very succinct statement in a letter to Bulganin, on January 12, 1958, President Eisenhower said:

. . . that, as part of such a program which will reliably check and reverse the accumulation of nuclear weapons, we stop the testing of nuclear weapons, not just for two or three years, but indefinitely.

It is hard to give a more emphatic bipartisan flavor than President Eisenhower's specific statements.

When the Senator from Arizona cites a list of six preeminent former Secretaries of Defense, I say that is, indeed, impressive. I would look to the assurances which we have today from Gen. Hugh Shelton, the Chairman of the Joint Chiefs of Staff, and the Secretary of Defense, William Cohen, in analyzing the two basic issues which have been set forth in the parameters by Senator KYL. And they are: Can we assure stability of our stockpile? Can we reasonably verify compliance by others?

There is a balance of risks. There is no test which will be absolute in its terms. But the essential question on balancing the risks and balancing the judgment is whether we would be better off with the Comprehensive Test Ban Treaty or without it.

The United States has an enormous lead on nuclear weapons. We have the nuclear deterrent. We have seen other nations—India and Pakistan—starting the test process. We have reason to be gravely concerned about North Korea's capacity with nuclear weapons. We worry about rogue nations such as Iraq, Iran, Libya, and others. So that, at least as I assess the picture, on a balance of risks, we are much better off if we limit testing than if we proceed to have testing.

The Stockpile Stewardship Program, I think, is reasonably effective. Is it perfect? No, it is not. The issue of verification, I think, is reasonably effective. It does not get some of the low-yield weapons. And activities are underway to try to solve that.

Secretary of Energy Richardson was in Moscow within the past week working with the Soviets on the so-called transparency test—illustrative of one of the efforts among many being undertaken to narrow the gap on verification. But again, it is a matter of balancing the risks. With or without the treaty, where are we better off?

I had an occasion to talk to Gen. Hugh Shelton, Chairman of the Joint Chiefs of Staff, earlier this week. I asked General Shelton the details of these questions, about the stability of our nuclear stockpile and the verification procedures. General Shelton said that we were in good shape on both issues.

Then I asked General Shelton the obvious question: Was his view, was his judgment colored to any extent by being in the administration of President Clinton as President Clinton's Chairman of the Joint Chiefs of Staff? It is not unheard of for even four-star generals to be a little concerned about what the Commander in Chief might prefer. General Shelton looked me in the eye and said: Senator, these are my honest views. If they weren't, I wouldn't state them; and rather than state views I didn't believe in, I could always retire.

I had occasion to talk at some length with Secretary of Defense William Cohen. It is true, as the Senator from Arizona outlines, at one point then-Senator Cohen had a different view. And as Secretary Cohen testified in hearings this week, a number of factors have led him to a different conclusion.

The question might also be raised as to whether the Commander in Chief of the Secretary of Defense might color, to some extent, his views. I am satisfied that Bill Cohen, with whom I worked in this body for some 16 years, would not put America at risk if he didn't believe what he said, that this Comprehensive Test Ban Treaty, balancing all considerations, was appropriate.

Once moving beyond the study of the treaty, which I have done, having announced my support for the treaty some time ago, after study and after looking at some of the experts, the question, in my judgment, is essentially a political question. I believe the lessons of history support arms control. That is a view I have held for some time.

I started my own personal studies of the United States-Soviet relations as a college senior, majoring in international relations at the University of Pennsylvania, and wrote my college thesis on United States-U.S.S.R. relations. One of the first resolutions I offered, coming to the Senate in early 1982, was a resolution for arms control. In 1982, Senators were pretty well lined up on philosophical grounds, those who favored arms control and those who did not favor arms control.

I recall that as a very tough debate against the chairman of the Armed Services Committee, John Tower. Who

is ARLEN SPECTER to tell the President what to do in pushing for a summit agreement? Senator Tower put me through the paces, so to speak, and we talked about our nuclear deterrence.

Fortunately, I had been to Grand Forks, ND, taken a look at the Minuteman silo, absolutely terrified to see that enormous missile, looked down; about 100 feet into the ground it went. I had gone to Charleston, SC, to take a look at our nuclear submarines. I had been to Edwards Air Force Base to take a look at some of our latest bombers. The Senate decided with my position, on a vote of 90-8, we ought to have a summit. President Reagan was a major proponent of arms control, and President Reagan then pushed the summit concept. So the idea of arms control is not an idea which has originated with President Clinton, with President Eisenhower, President Reagan four-square behind it.

I have not hesitated to buck the arms control concept if I thought the United States had some technical advantage to be gained by stepping out on our own, if that would promote our national security. Attending the Geneva arms control talks in the mid-1980s, I became persuaded that the Strategic Defense Initiative was a sound proposition, though very controversial, that turned on our ability to develop the SDI, the Strategic Defense Initiative, as to whether the Anti-Ballistic Missile Treaty was subject to the broad interpretation or the narrow interpretation.

There were some very heated debates on the floor of the Senate. Senator MOYNIHAN was involved. Senator Nunn, a leading expert in the entire field, argued very strenuously for the narrow interpretation of the Anti-Ballistic Missile Treaty. I argued for the broad interpretation, which I thought was legitimate, because it would give leave to develop the strategic arms initiative. That was a complex issue. Many people said it was Star Wars, spy in the sky, couldn't be done.

I recollected, historically, that Vanevar Bush, a leading expert in the field, testified before Congress during World War II, actually in 1945, that it would be "impossible to develop intercontinental ballistic missiles." Fan-ciful as it may have been in 1945, we now know they have been developed.

Then-Secretary of Defense Robert McNamara said, in 1945, that the United States had such a tremendous lead, the Soviets could never catch us. He was wrong, too. They caught us and surpassed us. We know the story that is not apocryphal, that a clerk in the Patent Office resigned at the turn of 19th century because there was nothing new to be discovered. I agreed with President Reagan's vision on the Strategic Defense Initiative that we spent a lot of money on it, and I don't think the money was wasted because we still are working and, more recently, with some success on missile defense.

In that context, President Reagan had an idea for control. President

Reagan spoke out about sharing what we would learn with the Soviets to give them our defense system so there would not be an imbalance, so the nuclear deterrence on both sides, that balance of power, would not be affected.

I had occasion to have a long discussion with President Reagan on September 17, 1987, the 200th anniversary of the signing of the Constitution of the United States. President Reagan went to my hometown, Philadelphia. We had a long plane ride and a fair-sized car ride. I asked the President how he could see to it that the Soviet Union had our secrets when it really wouldn't be a matter during his Presidency and really it is a matter up to Congress. Candidly, President Reagan had no absolute answer to that point. But it was his vision that we would have the Strategic Defense Initiative and that we would share it with the Soviet Union.

When we take a look at the specifics and the technicalities, my sense is, there are reasonable assurances but it is a matter of balancing the risks.

We had a remarkable closed session of 5 hours in S-407 upstairs, which is the room where we have our secret briefings. After 5 hours, there was no doubt that it is a complicated subject. The distinguished chairman of the Arms Services Committee, Senator WARNER, came to the Republican luncheon caucus on Tuesday and said there is an adequate record to assure a negative vote on the Comprehensive Test Ban Treaty. I later had a chance to discuss with my distinguished colleague from Virginia the converse question. May the RECORD show he is on the floor now; nothing behind his back.

Mr. WARNER. Mr. President, no, indeed; I am right here. At such point as the Senator will entertain a question, I will be happy to put it to my colleague.

Mr. SPECTER. We may come to that.

I will repeat the assurances that Senator WARNER gave me, that while he said there was an adequate record for a negative vote, he also said there was an adequate record for an affirmative vote, depending on how one looked at the evidence. So my view is, it comes down to a judgment call. It comes down to an issue which is essentially a political question as to how the national security of the United States is better served by relying on our superiority today and stopping other nations from achieving superiority.

I believe the United States would be well advised to move ahead to ratify this treaty and to show the world we still have a preeminent role of world leadership in moral terms as well as in armament terms.

We have the unprecedented event just this morning, where we have the op-ed piece appearing in the New York Times with the Prime Minister of Britain, the President of France, Chancellor of Germany, all urging this Senate to ratify the Comprehensive Test-Ban Treaty.

I had occasion to travel to Ukraine in August; I talked to the President of Ukraine, Foreign Minister, and other ranking officials. The ratification of the Comprehensive Test-Ban Treaty was high on their agenda. Ukraine has taken a unique attitude in giving up nuclear weapons. Many nations around the world seek nuclear weapons as a sign of their national power. Ukraine is prepared to give them up. I asked the leader of that country why. President Kuchma responded: Well, we prefer the Japanese model of economic strength. Also, we have had the terrible experience at Chernobyl, and we do not want to have nuclear weapons for fear of what happened at Chernobyl. But high on the agenda of the Ukraine top officials is ratification by the United States.

Senator Hank Brown and I had occasion to travel to the subcontinent in 1995. We talked to Indian Prime Minister Rao.

He told us that he would be very interested in seeing the subcontinent nuclear free. A day or two later, we were in Pakistan talking to Prime Minister Benazir Bhutto, and we related to Prime Minister Bhutto what Premier Rao had to say. She said, "Did you get it in writing?" We thought it was a little flip, perhaps.

We said, "No," and countered with, perhaps, an equally flip question: "When was the last time you talked to the Prime Minister of India?" She said, "We don't talk." Senator Brown and I said, "Well, we think you should."

The next day, August 28, we had departed for Damascus. Senator Brown and I sent a letter to the President urging him to call into the Oval Office the Prime Minister of India and the Prime Minister of Pakistan.

I ask unanimous consent that the letter be printed in the RECORD.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

U.S. SENATE,
Washington, DC, August 28, 1995.

THE PRESIDENT
The White House, Washington, DC.

DEAR MR. PRESIDENT: I think it important to call to your personal attention the substance of meetings which Senator Hank Brown and I have had in the last two days with Indian Prime Minister Rao and Pakistan Prime Minister Benazir Bhutto.

Prime Minister Rao stated that he would be very interested in negotiations which would lead to the elimination of any nuclear weapons on his subcontinent within ten or fifteen years including renouncing first use of such weapons. His interest in such negotiations with Pakistan would cover bilateral talks or a regional conference which would include the United States, China and Russia in addition to India and Pakistan.

When we mentioned this conversation to Prime Minister Bhutto this morning, she expressed great interest in such negotiations. When we told her of our conversation with Prime Minister Rao, she asked if we could get him to put that in writing.

When we asked Prime Minister Bhutto when she had last talked to Prime Minister Rao, she said that she had no conversations with him during her tenure as

Prime Minister. Prime Minister Bhutto did say that she had initiated a contact through an intermediary but that was terminated when a new controversy arose between Pakistan and India.

From our conversations with Prime Minister Rao and Prime Minister Bhutto, it is my sense that both would be very receptive to discussions initiated and brokered by the United States as to nuclear weapons and also delivery missile systems.

I am dictating this letter to you by telephone from Damascus so that you will have it at the earliest moment. I am also telefaxing a copy of this letter to Secretary of State Warren Christopher.

Sincerely,

ARLEN SPECTER.

Mr. SPECTER. There is great power in the Oval Office. No one declines an invitation to the Oval Office—at least, I don't know of anybody who has declined an invitation to the Oval Office. I had occasion to speak to the President about it later in 1995, and he said he thought it was a good idea, but he wanted to defer it until after the 1996 election. I talked to him after the 1996 election, and he said he still wasn't ready to do it, and what would happen with China and India.

I am not going to criticize the President for not calling them in. I hope he will yet. But I think when India and Pakistan tested nuclear weapons in the spring of 1998, it was a very dangerous sign for the world. How can the United States ask India and Pakistan not to test nuclear weapons when we won't ratify the Comprehensive Test-Ban Treaty? It simply doesn't make any sense. And that is why I think the national security of the United States would be enhanced on a balance of risks. It may not be perfect on verification, or it may not be perfect on the stability of our stockpiles, but whatever risk is involved there, I believe it is minimal. It is a small risk compared to having India and Pakistan test nuclear weapons and set off an arms race there that can be duplicated around the world.

The failure of the United States to ratify the Comprehensive Test-Ban Treaty has caused a ripple around the world. People wonder why the United States has not ratified this treaty. But if the Senate were to reject the treaty on a Senate vote, there would be a wave around the world, and it would be a tidal wave. What is now a ripple of wonderment would turn into a tidal wave of disbelief and could cause a chain reaction, which would be—

The PRESIDING OFFICER. The 20 minutes yielded to the Senator has expired.

Mr. SPECTER. I ask unanimous consent for an additional 5 minutes.

Mr. MOYNIHAN. With great pleasure. We are listening and learning.

Mr. WARNER. Mr. President, I will ask for an additional minute on our side, to be charged to our time, to ask a question of my good colleague.

The PRESIDING OFFICER. The entire debate is evenly divided. There are many hours on each side.

Mr. MOYNIHAN. I think the Senator from Virginia will have all the time he wishes.

The PRESIDING OFFICER. The Senator from Pennsylvania may continue.

Mr. SPECTER. To repeat my last thought, which might have been lost in the UC request, the failure of the United States, up to date, to ratify the Comprehensive Test-Ban Treaty has caused a ripple of wonderment. A vote by the Senate rejecting the Comprehensive Test-Ban Treaty would cause a tidal wave of astonishment. It might set off a chain reaction around the world, which would be even more serious than the chain reaction of the atomic bombs in Nagasaki and Hiroshima.

When we take a look at what is scheduled for next Tuesday, where we have the vote, it is my hope that we will find a way yet to work our way out of the unanimous consent request. I believe that a vote of rejection on Tuesday—and I have used this word before, and I use it advisedly, but I think it is accurate—I think rejecting the treaty would be catastrophic.

We are in a situation where our distinguished majority leader, Senator LOTT, is unwilling to defer the vote if he is going to have to face a crescendo of demands during next year. Senator LOTT did not want to schedule the Comprehensive Test-Ban Treaty vote at this time. I know because I had asked him to do so. I had asked him to do so in private conversations. When he had given me his reasons, I awaited his judgment. There was substantial urging, maybe even agitation, maybe even goading on the Senate floor by some that Senator LOTT should schedule this vote. He finally responded to it. He responded to it in a context where the treaty is assured to be defeated.

President Clinton held a dinner last Tuesday evening, which was attended by a number of people here, including Senators WARNER, BIDEN, HAGEL, myself, and others. I think it is fair to comment, as it has been in the media.

The President declined to ask that the vote be deferred on the condition that the President not ask that it be taken up all during the year 2000. I think the President felt that would signify backing off, and he thought some events might develop where he had to call for the treaty to be ratified. He said, candidly, he would have a hard time explaining it to our allies.

Well, I can understand Senator LOTT not wanting to see this matter become a political football in the year 2000. It has that potential, whether the parties intend it or not. If there is a crescendo of demand for the treaty to be ratified, taken up in the spring, fall, or summer of next year, it could have an affect on the election in 2000. I think it is realistic to take it out of the election.

Senator LEVIN, the distinguished ranking member of Armed Services, made a public comment in the hearings that he thought the treaty should not come up for ratification before the

election. I think that is a sound judgment. There may be a way out of that dilemma by scheduling the treaty debate and vote on November 15 of the year 2000. That will take it out of the election cycle and it would allow President Clinton, who has advocated the treaty, to be a spokesman and have it decided on his watch.

There is another alternative, which is not as good as doing it in November of 2000, but that would be to schedule the debate and vote between January 3 and January 20 of 2001. We would not have a lame duck Senate, and it would be out of the election cycle.

I think it is very important to take this treaty out of politics and out of partisanship. There is an overhang that we should not ignore—a partisan overhang to this debate. All 45 Democrats are said to be in favor of the treaty. The number of Republicans is unknown precisely, but very, very limited. That is bad for America and that is bad for the world. When we had the vote on the use of force in the Gulf in January of 1991, it was largely partisan, where 42 Republicans and only 10 Democrats backed a Republican President. When we had a vote on the use of airstrikes in Yugoslavia earlier this year, it was 58 to 41. Only 17 of 55 Republicans joined the Democrats. That partisanship is highly undesirable.

I ask for one additional minute.

Mr. BIDEN. Mr. President, I will do that. We have 7 hours of debate, and we have 31 people. This is the last minute, and not one second over. I love him, but I will object.

Mr. SPECTER. Love doesn't last very long if it is only up to a minute.

I think there ought to be a recognition of another problem, which I will state in 20 seconds. There is a certain lack of trust between Capitol Hill and the White House, and that is a fact that we have to take into account in our calculations. Within 20 seconds, I can't recount why.

In conclusion—the two most popular words in any speech—I think we ought to avoid playing nuclear roulette with the Comprehensive Test-Ban Treaty. Russian roulette is a great sport, played with a revolver in which one chamber has the bullet.

But I think in this matter, we are playing with nuclear roulette if we go to a vote next Tuesday and reject this treaty.

I urge my colleagues to work hard to find a way to debate and vote this issue at a later time.

The PRESIDING OFFICER. Who yields time?

Mr. WARNER. Mr. President, I yield time.

Mr. KYL. Mr. President, I yield to the Senator from Virginia.

The PRESIDING OFFICER. The Senator from Virginia.

Mr. WARNER. Mr. President, on the time allocated to those in opposition, I want to ask my good friend a question.

First, we joined this institution at about the same time a number of years

ago. I very much respect the Senator. So much of the Senator's career has been devoted to international relations, and he reflects very warmly one of the great teachers he had, and that was Senator Tower, former chairman of the Senate Armed Services Committee.

But I want to go back to a particular reference that the Senator made in his opening remarks to the support by the uniformed officers of the chairman of the Joint Chiefs and others for this treaty. It is true that there is a division of opinion between the Joint Chiefs. I don't speak in terms of those in opposition today, but I mean those who precede.

We have letters on both sides pointing out how men and women of good conscience—men and women who have had extensive experience in these fields—are different on this treaty. But the question I put to my good friend relates to the President's letter of transmittal of this treaty on September 22, 1997. I am reading from that document which accompanied the treaty to the Senate. There is a provision in there called "the safeguards."

I recite a sentence of that.

The understanding that if the President of the United States is informed by the Secretary of Defense and the Secretary of Energy (DOE)—advised by the Nuclear Weapons Council, the Directors of DOE's nuclear weapons laboratories, and the Commander of the U.S. Strategic Command—that a high level of confidence in the safety or reliability of a nuclear weapon type that the two Secretaries consider to be critical to our nuclear deterrent could no longer be certified, the President, in consultation with the Congress, would be prepared to withdraw from the CTBT under the standard "supreme national interests" clause in order to conduct whatever testing might be required.

Speaking for myself—and I have in the course of the last several days as Chairman of the Armed Services Committee dealt extensively with this entire issue before the Senate today—I have time and time again referred to the fact that it is my conclusion, drawn from talking with a number of these senior military officers who have given their support, and who in years past have given their support, that it is this clause that is the foundation for their opinion of support.

But I say to my good friend that were we to ratify this treaty, and if it would go into force, then many nations could rely on the act of the United States—as a matter of fact, one of the principal reasons for this treaty is to induce other nations to follow—and then 8, 10, or 15 years down the road we exercise the right under this, what happens to those nations? They are left out there stripped of protection that they could, with their own systems, have developed. And, worse yet, if we were ever compelled to announce to the world that we have concern about the credibility and safety of our nuclear arsenal, that would send a frightening message across the land that what we have had in place these 50 years, referred to

as the "nuclear umbrella," which umbrella preserved the peace from major conflict in Europe for 50 years, is now in doubt.

Mr. President, as you talk about who is supporting the treaty, let's go back and examine the reasons.

I say that the military relied very heavily on that clause. In my judgment, if that clause were ever utilized, this country would be in a far worse position than if the Senate were to exercise its right and withhold the advice and consent on ratification.

I ask my good friend, if that clause were invoked, what would be the reality among the world's community of nations? What would be the reality of the signal going out that our credible deterrent is in question?

Mr. SPECTER. Mr. President, I am delighted to respond to that question from the distinguished chairman of the Armed Services Committee on a number of levels.

First of all, the clause is there, so that when the Chairman of the Joint Chiefs and others support the treaty because of the presence of that clause, that is a very important factor. And that clause is worth relying upon.

That is the reason, if there should be a problem either with the stability of our stockpile, or with the verification, and we felt it was necessary for national security to invoke that clause and withdraw, that we would do so.

With respect to other nations which might ratify the treaty based on our leadership, they do so with the full knowledge that that clause is present, and that we have the right to withdraw in our supreme national interest, so that if we should exercise the right of this entire affair in our dealings with those nations because they have known from the very outset that is a distinct possibility, there is nothing hidden about that.

When you ask the pointed question at the very end of the series of implicit questions, when you ask the question, how would it look for our national security if we made a concession that we had a test, and withdrew from the treaty, I would say to my distinguished colleague from Virginia that is no worse than if we did not have the treaty and we started to test.

The only reason we would exercise that clause and withdraw from the treaty would be so that we could start to test.

Assume that we don't have the treaty. Assume down the road that we start to test. That is going to be a loud signal, an explosive signal, to the world that we are not satisfied with the status quo when we have to test.

I think that exercising that clause would be no more emphatic or no more of a problem for the United States than not doing so.

But I think when you take a look behind General Shelton, and other Chairmen of the Joint Chiefs—General Shalikashvili, Colin Powell, David Jones, Bill Crowe, only Admiral

Vessey, Chairman Vessey, was on the other side.

I think that is a very weighty consideration.

Mr. WARNER. Mr. President, I simply focus your attention on one or more nations, should this treaty be ratified, saying there is no necessity for us to launch our own program because there stands the United States, the leader. And nowhere in the history of the United States have we ever exercised such a clause as this, I say to my good friend. I don't think there is a precedent in our 200-year history of ever pulling out. But, nevertheless, we could be faced with those facts. Otherwise, there would have been no reason to have put that clause in there.

It was a real situation to the President at that time in transmitting the treaty to the Senate that these conditions could arise, and he put that clause in. I daresay it was put in there such as the military uniformed community could lend their support.

But what happens to that nation that did not start this program and 10 or 12 years hence is left out there? Take, for example, Japan. It has the capacity to generate a program in a matter of a few years. They have relied in many respects on our nuclear deterrent. But if that is ever put in doubt, that nation and others would want to start this program. But it would take a decade for them—perhaps not Japan but most nations—to put into place any credible nuclear deterrent.

I say to my good friend—I know other Senators want to speak; it is important, and we are going to have a good debate today—in my opinion, you jeopardize substantially the world community if at any time you say we might pull out pursuant to that clause.

Mr. SPECTER. Mr. President, if I may respond briefly, I think that Japan is well advised to rely on the United States and our nuclear deterrent for whatever risk there may be of pulling out. But Japan has, up to the present time, as the Senator from Virginia knows, relied upon the United States. Japan has had ample opportunity to develop whatever nuclear system they could have wanted. They have made the decision to the present time not to. There is no reason to believe they are about to change, regardless of what the United States does.

However, when we talk about the withdrawal provision, that is not unique to the Comprehensive Test Ban Treaty. We have debated repeatedly on the floor of this Senate the provisions of the Anti-Ballistic Missile Treaty which allows withdrawal on notice—again, for supreme national interests. So the insertion of this clause in the treaty is no signal that we are considering using it. I think that is a standard provision.

Mr. WARNER. Mr. President, in fairness to other Senators, we must yield the floor. However, I hope at some point this issue is revisited with my good friend, the distinguished Senator from Delaware.

I yield the floor.

Mr. BIDEN. I yield myself 2 minutes, and then I yield to my friend from New York.

First, the very essential safeguards the chairman indicated all military guys want, I find it fascinating that the Republican leadership would not allow the Senate to include those in the treaty. That indicates what a stacked deck this is and how outrageous is this approach of how we are proceeding on this is.

The very things all the Joint Chiefs and the President of the United States said they wanted in the treaty as the six safeguards when we brought this up in the unanimous consent agreement, we were not allowed to include those as part of the treaty. I think that is telling.

The second point. The Senator says, Have we ever exercised this clause? The appropriate question is, Have we ever needed to? The answer is, we have never concluded we needed to. Such a clause, or a variation, is in every treaty the United States of America signs. This is a bit of a red herring. In every treaty we sign of consequence relating to our national security, there is a supreme national interest clause. The reason we haven't exercised it is that no President has concluded there was a need.

The third point I make, if my friend is concerned—as I know he is—about our friends at one point not being able to rely upon the United States and deciding to go their own route, I ask him why Tony Blair and Jacques Chirac are making a personal appeal to the President of the United States, for goodness sake, pass this treaty. Japan and Germany are saying please, please, pass a treaty. We signed it; we ratified it.

How much time does the Senator from New York require?

Mr. MOYNIHAN. Twenty minutes.

Mr. BIDEN. I am delighted to yield 20 minutes to my friend from New York.

The PRESIDING OFFICER (Mr. SESSIONS). The Senator from New York.

Mr. MOYNIHAN. Mr. President, to continue on the point made by our distinguished ranking member that the leaders of Britain, France, and Germany are appealing to the Senate this very day to sign this treaty, I make a point to the Senate which I don't know has ever been made. That is that in the aftermath of the Cold War we find ourselves the one nation on Earth that has the power to shape events all over the Earth.

Coral Bell, of the Australian National University, wrote about this in an article in the recent issue of "The National Interest," called "American Ascendancy." There is a striking passage. She writes:

During the 1990s, the United States has mostly tiptoed through the current unipolar structure of the society of states with a sort of ponderous tact, like a benign Ferdinand-type bull making its way delicately around a china shop of unknown value. That prudence has been well justified: the situation is still quite new and of uncertain import to all the

world's policymakers. History is not much help, for no equal degree of unipolarity has existed since the high point of the Roman world, almost two millennia ago.

I repeat, there has been no such unipolarity since the high point of the Roman world, two millennia ago.

The central balance of power had seen the main agenda of world politics for more than five centuries.

We think of the Congress of Vienna of 1815, of the British role in the balance of power in Europe, and such the like.

Bell continues, "... this 'intermission,' even for a time whose length remains a matter of speculation, is a truly transformatory event."

A truly transformatory event. Nothing such has happened in two millenia.

As if evidence were required, in this morning's New York Times, Jacques Chirac, the President of France, and Tony Blair, Prime Minister of Britain, and Gerhard Schroeder, Chancellor of Germany, wrote an op-ed article pleading with the Senate to ratify this treaty. I ask unanimous consent to have that article printed after my remarks.

The PRESIDING OFFICER. Without objection, it is so ordered.

(See Exhibit 1.)

Mr. MOYNIHAN. At any time in our history, can anyone imagine the effective heads of the Governments of the United Kingdom, France, and Germany pleading with the Senate in our own press to do what we had led the world to do in the first place.

The point has been made that the idea of a Comprehensive Test Ban Treaty was first proposed by President Eisenhower in 1958. I note that when we finally got around to drafting one, the United States was the first signatory on that same day in New York. The other four of the five declared nuclear powers also signed. However, we were the first to propose it, as we were the first to develop nuclear power as a weapon; the first to propose ending tests to continue expanding our arsenals; and now the first to sign such a treaty, almost a generation after Eisenhower proposed it.

There were increments along the way. I was in the Kennedy administration at the time the Atmospheric Test Ban Treaty was signed. It seemed such a large event, and it was.

Governor Harriman was a negotiator in Moscow and made the point—I had served him in Albany, and we talked about this—he said that when he arrived, the Soviets had already decided to sign this treaty, but of course we had to have days of intense negotiations to reach the point where they would agree to do what they had already decided to do. The Soviets had said yes, there is too much danger to mankind.

That was something they had not previously concerned themselves over much with, save as a revolutionary state.

Just a line from the article by the three heads of government:

The decisions we take now will help determine, for generations to come, the safety of the world we bequeath to our children. As we look to the next century, our greatest concern is proliferation of weapons of mass destruction, and chiefly nuclear proliferation. We have to face the stark truth that nuclear proliferation remains the major threat to world safety.

They are speaking to us in this near-empty Chamber. Some of our most distinguished authorities in these matters are here. Most Senators are not. The powers that dominated the last 500 years of politics: England, France, Germany—Spain somehow not there for the moment—pleading with us.

May I be specific, if I can, on the matter of particular interest? You may be sure it was on the minds of the leaders who have written to us today, and that is the situation in the subcontinent, which is to say India and Pakistan. I was Ambassador to India in 1974 when the Indians set off what they called a "peaceful nuclear explosion." They intended it as such. In conversations with Prime Minister Gandhi, she was persuasive that they were not going to build a bomb; they simply wanted to establish that they had the capacity to do so. It was a matter of prestige. It was a matter of reminding Westerners that Indian physicists, such as Satyendranath Bose, had been as much a part of the great era of discovery early in the century as the Europeans, and more than Americans.

A quarter century goes by. The Congress Party with its universalist tendencies and professions has gone into a minority. A new party, a Hindu party, as it calls itself, the BJP, came to power in March of 1998. Two months later, India set off a series of five nuclear explosions. That was followed almost instantly with Pakistan doing the same. At the same time, they demonstrated a missile, probably of North Korean origin, which they named the Ghauri, in honor of the first Islamic invader of Hindu India.

Here you have all those things that conspire to destruction. This spring there was a Pakistan offensive in the Kargil mountains of Kashmir. The Indian Government quite successfully held it back and repulsed it, I believe, but not before Pakistani military officers had said: Keep this up and there are other options available to us.

Those other options of course include the nuclear option.

Here an important distinction is to be made. In India, to its great credit, nuclear development is a matter directly under the control of the Prime Minister and is not under the control of the military. The Indian military have been very apolitical, kept out of politics, and have followed civilian command from the beginning. Not so Pakistan. The Pakistan bomb is in the armamentarium of the Pakistan military.

Here, if I can make a point on which I do have total confidence, but I believe is a shared judgment: It is not clear that the Indian tests last year were all

that successful. They probably did not achieve a hydrogen bomb as they proclaimed. Even the 1974 test was exaggerated in its volume. The Indians have kept the military out of nuclear matters, but their scientists know they have not sufficiently succeeded, and they want to test more.

In the report from India in this morning's press announcing the BJ Party has been returned to office with a very solid coalition, it was noted that the outgoing government, which will now be coming back in, had committed itself to further testing. They need to do that because they are, obviously, at a disadvantage as regards their adversary, the Pakistanis. They need, as it were, to show the Pakistanis they have the weapons that they have claimed to have. In turn, the Pakistanis will respond.

Pakistan is not a stable country, not a country with civil authority very secure, and an impoverished country, a country that will be selling nuclear weapons. They will be selling them to the Middle East. A Saudi prince has recently visited Pakistan and was shown nuclear facilities. We have to expect this migration. It is ineluctable, unless we get this treaty.

The point I finally make is we dare not reject the treaty but we need not instantly ratify it. The treaty, very carefully drawn, provides that 44 states must have ratified this treaty before it goes into effect—44. As of today, of the 44 states required, 41 have signed the treaty but only 26 have ratified it, which is to say another 18 countries, including the United States, have to do so before it goes into effect. Of these countries, the most significant clearly are India and Pakistan. I assure you—well, I withdraw that remark—I prophesy that, should we turn this treaty down, the forces in New Delhi and in Islamabad will say: "You see, there are the Western imperialists demanding their own liberties to do anything they wish—tests, they have already the 1,030 tests—and they want now to deny them to us? No. That day is over."

Can we not listen to our closest friends and allies? We cannot ratify today. Someday we will, but we must not reject this treaty. It would be sending a ruinous signal. The complexities of our procedures in the Senate are not understood abroad, and they need not be in that sense. The word will be we said no, just as in 1919 we said no to the Treaty of Versailles, we would not become involved in the affairs of Europe. And how many years was it until D-Day when we had to land our forces there?

Mr. WARNER. Mr. President, will the Senator yield for a question on my time?

Mr. MOYNIHAN. I am happy to do so and honored.

Mr. WARNER. Mr. President, I have had some discussions with the distinguished senior Senator from New York, as have others, on the question of the timing of the Senate's final delibera-

tion of the treaty. Indeed, I think our leadership and all of us are looking at this in a very serious way. But it seems to me—and this is my judgment—that an element of such consideration has to be a recognition that under our Constitution, next year elections are held across this Nation for the Office of the Presidency, one-third of the Senate, and the entire House. To inject a treaty which, in the minds of many—not this Senator, but I respect the views of others—is so vital to our security interests into that atmosphere and the dynamics of an election year, in my judgment, would not give a fair and objective opportunity for this treaty to be considered solely on its merits. I use the phrase "solely on its merits." Does my colleague agree with me?

Mr. MOYNIHAN. I entirely agree with the Senator, if we can preface his remarks by the statement that we do not have the votes to ratify the treaty today.

Mr. WARNER. I say to my friend, I will work during the course of the day, and he has indicated a willingness to join me in this venture.

Mr. MOYNIHAN. I most certainly have.

Mr. WARNER. I thank the Senator. I yield the floor because I know others are anxious to speak.

Mr. MOYNIHAN. I shall be honored to work with the Senator from Virginia and the Senator from Delaware. This may be a very productive moment in what looks like a perilous time.

Mr. President, I have spoken at some length. I am happy to yield the floor.

EXHIBIT 1

[From the New York Times, Oct. 8, 1999]

A TREATY WE ALL NEED

(By Jacques Chirac, Tony Blair and Gerhard Schröder)

During the 1990's, the United States has made a vital contribution to arms control and nonproliferation. Thanks to the common resolve of the world's powers, we have achieved a substantial reduction in nuclear arsenals, the banning of chemical weapons, the indefinite and unconditional extension of the Nuclear Non-Proliferation Treaty and, in 1996, the conclusion of negotiations on the Comprehensive Test Ban Treaty. South Africa, Ukraine, Kazakhstan and Belarus have renounced nuclear weapons in the same spirit.

The decisions we take now will help determine, for generations to come, the safety of the world we bequeath to our children. As we look to the next century, our greatest concern is proliferation of weapons of mass destruction, and chiefly nuclear proliferation. We have to face the stark truth that nuclear proliferation remains the major threat to world safety.

Failure to ratify the Comprehensive Test Ban Treaty will be a failure in our struggle against proliferation. The stabilizing effect of the Non-Proliferation Treaty, extended in 1995, would be undermined. Disarmament negotiations would suffer.

Over half the countries that must ratify the new treaty to bring it into force have now done so. Britain, France and Germany ratified last year. All the political parties in our countries recognize that the treaty is strongly in our interests, whether we are nuclear powers or not. It enhances our security and is verifiable.

The treaty is an additional barrier against proliferation of nuclear weapons. Unless proliferators are able to test their devices, they can never be sure that any new weapon they design or build is safe and will work.

Congress realized this in 1992 when it compelled the United States Presidential Administration to seek the conclusion of a Comprehensive Test Ban Treaty by 1996. It was a welcome move for the world's strongest power to show the way.

The treaty is effectively verifiable. We need have no fear of the risk of cheating. We will not be relying on the good will of a rogue state to allow inspectors onto its territory. Under the treaty, a global network of stations is being set up, using four different technologies to identify nuclear tests. The system is already being put in place. We know it will work.

Opponents of the treaty claim that, without testing, it will not be possible to guarantee the continuing safety and reliability of nuclear weapons. All nuclear powers, including the United States, Britain and France, examined this issue carefully. All reached the same conclusion. With the right investment and modern technology, the necessary assurance of safety and reliability can be maintained without further nuclear tests.

Rejection of the treaty in the Senate would remove the pressure from other states still hesitating about whether to ratify it. Rejection would give great encouragement to proliferators. Rejection would also expose a fundamental divergence within NATO.

The United States and its allies have worked side by side for a Comprehensive Test Ban Treaty since the days of President Eisenhower. This goal is now within our grasp. Our security is involved, as well as America's. For the security of the world we will leave to our children, we urge the United States Senate to ratify the treaty.

The PRESIDING OFFICER. The Senator from Arizona.

Mr. KYL. Mr. President, I yield 12 minutes to the Senator from Nebraska, Mr. HAGEL.

The PRESIDING OFFICER. The Senator from Nebraska is recognized.

Mr. HAGEL. I thank the Chair.

Mr. President, what is the objective of a comprehensive test ban treaty? What is the objective of what we are about? The objective is to stop nuclear proliferation. The objective is to make the world safer for mankind. Unfortunately, this noble effort now must be rescued from partisan politics. We are trapped in a political swamp as we attempt to compress a very important debate on a very important issue.

A few minutes ago, there was an exchange about timing. We only have a few hours to debate. My goodness, is that any way to responsibly deal with what may, in fact, be the most critical and important vote any of us in this Chamber will ever make? It is not. We cannot have a serious debate about nuclear proliferation when artificial timelines prevent that important debate. Unfortunately, the political environment has captured this issue.

Aside from all the technical debate that will go on, as has begun this morning, and rightfully so, about this treaty, this treaty is symbolic. It represents 50 years of America's leadership throughout the world in dealing with our allies and, yes, our adversaries, in trying to curb nuclear proliferation.

Much has been said this morning by my distinguished colleagues about our allies, Great Britain and France. They moved forward in good faith last year and ratified this treaty. Consequently, they are dismantling their nuclear testing facilities. What do we say to them if we defeat this treaty? What do we say to the rest of the world, and what is that symbol, what is the message we project?

We are far better off to take the time necessary to work our way through the critical questions and issues. This debate needs to be taken down many layers, many levels in the questions that are relevant. We have forced hearings this week in three committees. The committee on which I serve, Foreign Relations, had more than 6 hours of hearings yesterday. They were informative and important. There is a great amount of doubt and question and concern about the governance language in this treaty: Who governs the implementation of this treaty, who is in charge, aside from all the technical questions. We could take days on the provisions for site inspections alone, and we should.

What are the consequences of us pulling out of this treaty? I hear from a number of my friends: If it is a bad treaty, we sign it and go ahead, and if the President of the United States says in the supreme national security interests of America we will pull out of the treaty—my goodness, do we think it is that easy to arbitrarily pull out of a treaty we led for over 50 years under the leadership of President Eisenhower, that was further anchored by the actions of President Kennedy with the first ban on nuclear testing in 1963? Do we think the political environment would be such that we could just arbitrarily pull out when we wanted? Do we not understand the consequences of that?

What about side agreements? We learned yesterday, for example, in the Foreign Relations Committee hearings that there are side agreements. That does not mean it is bad, but what are those side agreements? How do they affect us? What is the management? What is the governance? Who makes the deal? Do those side agreements have force behind them? What happens in 10 years when there are new governments?

My colleagues understand and share with me the same fundamental responsibility to this country, and that is, America's security is paramount; nothing else is more important. That is our premier responsibility as Senators as we debate this issue. The fundamental principle we must follow is not to jeopardize the security of our people and our country.

The U.S. nuclear deterrent has prevented a worldwide conflagration for over 40 years. As former Secretary of Defense Caspar Weinberger said yesterday in the hearings, that effective deterrence depends entirely on the assurance that our nuclear arsenal will work

when it needs to work. It is a huge issue, a huge question. The safety and reliability of the nuclear arsenal, therefore, must be maintained above all.

We might be able to do that with computers and other means, other than testing. That may well be feasible. But I want to be assured a lot more than I am now that, in fact, can be done without jeopardizing the security of the United States.

We heard much about intelligence reports in all three committees that held hearings this week. The administration says those intelligence reports are not yet complete. Why are we rushing to a vote when we do not have all the intelligence, when we do not have all the information? Why is there this arbitrary test timeline that we must have a vote?

What about the next administration? There will be a new administration, Democrat or Republican. I read this morning Donald Trump is interested in a Trump administration. There may be a Jesse Ventura administration, I say to Senator BIDEN. We do not know.

Mr. BIDEN. Will the Senator yield?

Mr. HAGEL. Certainly.

Mr. BIDEN. Never mind; I withdraw it.

Mr. HAGEL. I suspect his contribution would not be relevant to the debate. The very serious fact is, we will have a new administration.

Is this treaty, essentially born 50 years ago from Eisenhower forward, relevant to the challenges of today?

Is it relevant to the new challenges of this next new century, the new challenges that this new administration, this new President will have to deal with? Are we boxing in this new administration? Shouldn't this new administration coming in, in January 2001, have an opportunity to review arms control, look at what those needs are, what is relevant?

The world has changed. It has changed in 10 years. The world used to be rather simple when we took this issue up 50 years ago, 20 years ago, 10 years ago: Two superpowers, the Soviets, the Americans; they were the ones with the nukes. Therefore, we created a structure, a protocol, a treaty that dealt with that. That has changed.

I strongly urge the President of the United States, as I did the other night—telling him directly, and my leader and the Democratic leader, and all of my colleagues—to not allow us to get into a box we cannot get out of and take a vote on Tuesday. It is irresponsible. It will surely go down. There will be consequences for that vote. It is the wrong thing to do for America. It is not responsible governance.

What do we do? Why not continue to hold hearings on this very important issue, take this down to as many levels as we need, get the answers? Maybe we have to restructure; I don't know. But the way it is now, we are not prepared to vote. Why not inform the American public? Why not allow the American

public to understand what we are doing? Why not allow all of our Senators to understand a little bit more than we do now about this issue?

The tough questions must be asked, the consequences played out. We must not allow ourselves to get trapped again in a timeline.

I heard this morning, Why not take a vote right after the election next year? That is interesting. Why not float it out? Why not do this up or down? But why force an artificial timeline? If the political environment is not right to have an honest, open, legitimate debate, it is not right. That is a fact of life. But do not rush something that is going to have dire consequences for the future of the world to satisfy some political dynamic or someone's interest in driving a timeline or driving a political determination. That is irresponsible.

Regrettably, I must say to my colleagues, if that vote is held on Tuesday, I will have to vote against this treaty. That will be regrettable because I would like to have more time to ask more questions, to understand what we are doing, because I, as do all my colleagues, take this responsibility very seriously. I say again, this vote, if it does come Tuesday or next year or in 2001, may in fact be the most critical vote any of us ever cast.

With that, I yield the floor.

Mr. MOYNIHAN. Mr. President, would the Senator yield for a question?

Mr. HAGEL. I surely will, I say to the Senator.

Mr. MOYNIHAN. Do I take it, from what the Senator so ably set forth about his concerns on both sides, that he would be receptive to a proposal to put off this vote?

Mr. HAGEL. That is correct, I say to the Senator. I think it is a wise course of action. I so informed the President the other night at the White House. I so informed my colleagues. I again say, as I did, if I have to vote Tuesday, I will vote against it. That will be regrettable because I believe arms control, the focused management of nuclear proliferation, is a responsibility this country has had.

We have taken the lead position on that for 50 years. I am proud of that. You are proud of that. To box ourselves in, surely knowing the impending defeat, I think would be a catastrophe for our leadership in the world.

Mr. MOYNIHAN. I agree "catastrophic" is not too strong a term. And the Senator would be receptive to postponing a foregone catastrophe on Tuesday?

Mr. HAGEL. I would, sir.

Mr. MOYNIHAN. I thank the Senator.

Mr. KYL. I yield 15 minutes to the Senator from Oklahoma.

The PRESIDING OFFICER. The Senator from Oklahoma is recognized for 15 minutes.

Mr. INHOFE. I thank the Chair and thank the Senator from Arizona for giving me this valuable time because we do not have a lot of time.

First of all, let me say I respect the Senator from Nebraska so much, and yet I have to disagree with him. I respect certainly the senior Senator from New York as well as the Senator from Delaware. But the reason I disagree with them is, it is not as if this came up all of a sudden and we did not have any time to look at it. This treaty has been here for 2 years. We could read it. We could study it. We could prepare amendments. We could spend time evaluating it, talk to the experts. I have been doing this. I assume many of my colleagues have been doing this.

So procedurally let me just explain, so there is no misunderstanding where we are, what my position is.

We had a unanimous-consent request propounded—it was agreed to a few days ago—that said we were going to have possibly up to two amendments, not necessarily, but if we did, it would be 4 hours of debate equally divided. Then we would have a vote on the treaty. There would be 14 hours of debate, which we are in the process of having right now.

This was done by unanimous consent. That means any one of these Senators we have been listening to this morning could have objected to that unanimous-consent request. Certainly, the senior Senator from New York could have done it, the Senator from Nebraska, the Senator from Delaware. Anyone could have done it. Only one Senator has said he would not have done it if he had been on the floor or if he had been aware of it. That was the Senator from West Virginia, Mr. BYRD.

That is the way the Senate is run. It is run by unanimous consent. So anyone could have stopped it. And they did not do it. But they could have.

It takes unanimous consent to vitiate that unanimous consent agreement. If this happens, I made an announcement yesterday and the day before, sitting on the Armed Services Committee—with such distinguished witnesses as our Secretary of Defense, Bill Cohen; as General Shelton, the Chairman of the Joint Chiefs of Staff; as the Directors of all the labs, all three of them—and I said in the event someone asks for a unanimous-consent agreement to delay this vote, I will object. I want everybody to know right now, I will object to that.

There may be some parliamentary maneuvering where they can figure out a way to get around my objection. If they do, I am sure it will have to be passed on by the Parliamentarian. And that might happen. I might lose this thing.

But we have been looking at this right now for over 2 years. Certainly we have had ample time to study it and digest it. It is not something that just jumped up. Any Senator, of 100 Senators, could have stopped the vote that is supposed to take place on Tuesday or Wednesday when the debate time expires. So let me just serve notice I will be here to object to that, so we get down to it. The reason is, we do not

need to keep delaying and delaying this thing.

The President has been yelling for 2 years: Bring it up. Bring it up. We want to bring this up for a vote. Yet now that it is up and he knows—he suspects; he does not know—he suspects he does not have the votes for ratification, he wants to bring it back. So anyway, that is where we are today.

Let me just respond to a few of the comments that have been made on the floor. The distinguished Senator from Delaware talked about the distinguished list of supporters of this test ban treaty. I would like to submit for the RECORD a list of those who are opposed to the ratification of this treaty. They include six former Secretaries of Defense—Schlesinger, Cheney, Rumsfeld, Laird, Carlucci, Weinberger—and several former Directors of Central Intelligence; 13 generals, commanding generals, who are now retired.

In fact, I would suggest—I might be challenged on this so I will say probably most of the military officials who are supporting the ratification of this treaty now are serving in the capacity in which they are serving at the will of the President.

So I ask unanimous consent this distinguished list of some 33 leaders saying we should oppose and vote down this treaty be printed in the RECORD.

There being no objection, the list was ordered to be printed in the RECORD, as follows:

PARTIAL LIST OF OPPONENTS OF CTBT

Jim Schlesinger (Former Secretary of Defense); Dick Cheney (Former Secretary of Defense); Don Rumsfeld (Former Secretary of Defense); Melvin Laird (Former Secretary of Defense); Frank Carlucci (Former Secretary of Defense); Caspar Weinberger (Former Secretary of Defense); Jim Woolsey (Former Director of Central Intelligence); Bob Dole; Governor George W. Bush; Elizabeth Dole; Judge William Clark (Reagan National Security Adviser); Richard Allen (Reagan National Security Adviser); Jeane Kirkpatrick (Former US Ambassador to the United Nations); William Graham (Reagan Science Adviser); Gen. Russ Dougherty, USAF (Former Commander, Strategic Air Command).

Gen. Louis Wilson (Former Commandant, US Marine Corps); Gen. Jim Johnson (Former Commanding General, 1st US Army); Gen. Albion Knight (Former Director, Atomic Energy Commission); Gen. Larry Skantze (Former Vice Chief of Staff, US Air Force); Gen. Tom Kelly (Former Director for Operations, Joint Chiefs of Staff); Gen. Jack Singlaub (Former Chief of Staff, US Forces in Korea); Gen. Mike Loh (Former Commander, Air Combat Command); Gen. Fred Kroesen (Former Commander, US Army in Europe); Gen. Don Starry (Former Commander, US Readiness Command); Gen. Milnor Roberts (Former Chief, US Army Reserve); Gen. Lewis Wagner (Former Commander, Army Materiel Command); Gen. Joseph Went (Former Assistant Commandant, US Marine Corps); Admiral Jerry Miller (Former Deputy Director, Strategic Planning Staff); Troy Wade (Former Assistant Secretary of Energy for Defense Programs); Edwin Meese (Former Attorney General); William Middendorf (Former Secretary of the Navy); Midge Decter (Former President, Free World Committee); Norman Podhoretz (Former Editor, Commentary Magazine).

Mr. INHOFE. Secondly, the Senator from Delaware is talking about our allies—I am very sensitive to our allies—and our allies have signed this treaty, so if our allies have signed this treaty, we have to do it.

Frankly, I am not concerned about our allies. I am concerned about our adversaries. I am not at all concerned that Great Britain is going to send a missile over to the United States. I am concerned about China and Russia and now North Korea. Right now, as we speak, the President is sending money and making promises to North Korea so they will not test a missile they have called a Taepo Dong 2 that will reach Washington, DC, from anyplace in the world, take 35 minutes to get over here, and we do not have any defense against this thing. So those are the ones about whom I am concerned. Have they ratified this treaty? No, certainly not China, not Russia, not North Korea. North Korea hasn't even signed it. Those are the ones about whom I am concerned.

Thirdly, certification. Certification doesn't mean we have weapons we know will be operative at any point in the future. It merely says we don't know that they won't be; we don't know of any. We can certify we don't know of any problems. How can they know of problems, if they are not testing them? I think that is a very weak argument.

Lastly, I would like to address the reference made by the Senator from Delaware to Dr. Paul Robinson. He is the Director of the Sandia Laboratory. He is the one the Senator from Delaware talked about as being, apparently, a credible source, or he would not have mentioned his name in his opening statement. Dr. Robinson says:

We know today that a test ban cannot prevent states from acquiring nuclear weapons if they are determined to do so. Credible nuclear weapons can be constructed without nuclear testing, as several nations, including South Africa, have demonstrated. The underground nuclear tests by India and Pakistan in 1998 are another example. These events were not developmental tests. They were demonstrations of nuclear capability that had been developed much earlier with little or no testing.

Those who claim that by ending nuclear testing we will close off the threat of terrorist development and use of nuclear explosives mislead themselves. Congress should not accept such arguments as a basis for endorsing the test ban.

Further, Dr. Paul Robinson said:

It is indeed correct that the United States would be ill-advised to place a sophisticated nuclear explosive design into the stockpile that had not been previously tested and validated. There is no question that actual testing of designs to confirm their performance is the desired regimen of any high technology device, from cars and airplanes to medical equipment and computers. For a device as highly consequential as a nuclear weapon, testing of the complete system, both when it is first developed and periodically throughout its lifetime to ensure that aging effects do not invalidate its performance, is also the preferred methodology. I and others who are or have been responsible for the

safety and reliability of the United States stockpile for nuclear weapons have testified to this obvious conclusion many times in the past. To forgo that validation through testing is, in short, to live with uncertainty.

I don't want to live with uncertainty. There is no way of knowing that we have a nuclear deterrent if we have to live with uncertainty.

There is no one I respect more highly than Secretary Bill Cohen, our Secretary of Defense. I served with him on the Armed Services Committee of the Senate, and he is certainly a most knowledgeable individual. I do have to say this: He has certainly changed his story since he was in the Senate. I am going to quote what Secretary Cohen said in 1992, when at that time he was the most vigorous opponent of a ban on nuclear testing we had in the Senate. This is Secretary Bill Cohen when he was a Senator:

Many of these nuclear weapons which we intend to keep in our stockpile for the indefinite future are dangerously unsafe. Equally relevant is the fact that we can make these weapons much safer if limited testing is allowed to be conducted. So when crafting our policy regarding nuclear testing, this should be our principal objective—to make the weapons we retain safe. The amendment that was adopted last week [speaking of 1992] does not meet this test, because it would not permit the Department of Energy to conduct the necessary testing to make our weapons safe.

When I asked that question, there was some suggestion that maybe we are talking about different weapons. We are not talking about different weapons. These are the nine weapons we are talking about today. These same nine weapons were there in 1992, the same ones to which Secretary Cohen alluded.

This chart tells us that there are five tests for safety features. These are the five tests. The most significant ones are the intensive high explosive and the fire resistance pit. That is to make sure they don't inadvertently explode during use or during storage; the same with the fire. If we look right here, we see that only one of these weapons—that is the W84—has any type of safety. I guess all five of the hazards are listed. The W62 has none. So this was true in 1992. It is true again today.

Some people have said, well, in the worst-case scenario, if something happens to the safety of this thing, we have a way of getting out of this thing. It is called safeguard F. Safeguard F is one sentence in the treaty. That sentence says that there is a way out in the event that it becomes a supreme national interest to get out. So that would be interpreted by our Commander in Chief or President, whoever is President at that time. I have often said—I don't think anyone is going to refute it—that we have a President who has a very difficult time telling the truth. Let us assume he is telling the truth. This is what he said his interpretation would be in his applica-

tion of safeguard F: In the event that I were informed by the Secretary of Defense, the Secretary of Energy, advised by the Nuclear Weapons Council, the directors of the Energy Department's nuclear weapons labs and the commander of the U.S. Strategic Command that a high level of confidence in the safety or reliability of a nuclear weapons type, which the two Secretaries consider to be critical to our nuclear deterrent, could no longer be certified, I would be prepared, in consultation with Congress, to exercise the supreme national interest under the CTBT in order to conduct whatever testing might be required.

He is saying, even if these five people; that is, everyone who has anything to do with or any knowledge of these nuclear weapons, even if all of them insist on it, he didn't say he would do it. He said he would be prepared to do it. That is a very weak statement. It doesn't mean he would do it at all. I don't find any comfort at all in what he stated.

Coming close to the end of my time, let me share a couple other thoughts about which I do have strong feelings. We had all three Directors of our three labs before our committee yesterday. All three of them testified that we have to test these nuclear weapons in order to make sure they will continue to work if called upon. These are the ones who are responsible for doing that. Verification has to be talked about.

It is kind of interesting. I will read an article in the paper a couple of days ago. It was an article in the Washington Post by Robert Suro, entitled "CIA Unable to Precisely Track Testing." This was last Sunday, I believe, talking about something that might have occurred on Saturday, less than a week ago right now. Again, it was entitled "CIA Unable to Precisely Track Testing." Among the troubling facts uncovered:

According to senior officials, the CIA has concluded that it cannot monitor low-level nuclear tests by Russia precisely enough to ensure compliance with the CTBT. . . . Twice last month, the Russians carried out what might have been nuclear explosions at its Novaya Zemlya testing site in the Arctic. The CIA found that the data from the seismic sensors and other monitoring equipment were insufficient to allow analysts to reach a firm conclusion about the nature of the events.

Having read that and then having had Gen. Henry Shelton and Secretary Cohen on the same panel, I asked them the question: Can you sit here and tell us that the Russians did not conduct those tests just a few months ago referred to in the article in last Sunday's Washington Post? They said: No, we can't.

We asked the same question of the Directors of the lab. They said: No, there is no way of knowing it.

Verification has always been a real serious problem with me.

Mr. President, I ask for 5 more minutes. I think that will be acceptable.

The time I am asking for is from our side.

Mr. KYL. How much time does the Senator wish?

Mr. INHOFE. About 4 minutes should be enough.

Mr. KYL. I ask that the Senator from Oklahoma conclude his remarks in 4 minutes, after which the time would go to that side.

Mrs. HUTCHISON. Mr. President, parliamentary inquiry. I wonder what the other timetable is. I have a flight I have to catch at 12:15. Is there a short time that would be available to me soon?

Mr. BIDEN. Mr. President, we have been alternating. We have had two Republicans, and the Senator from Michigan needs additional time.

Mr. LEVIN. If it is all right with the others in line, that is all right with me.

Mr. BIDEN. If the Senator is brief, we will be happy to yield to you. That will have been three Republicans in a row, but to accommodate, we are happy to do that.

Mr. LEVIN. Mr. President, after the Senator from Texas goes ahead of us—which is fine if she has to catch a flight—could there be two Democrats at that point?

Mr. KYL. Mr. President, I have no objection to that. Senator ALLARD is waiting. Unfortunately, about three people have gone ahead of him. He has also presided. Maybe he can have some time.

Mr. ALLARD. I would not want to lose my time. I have an appointment I need to attend, so I hope I can get out of here by 1:30.

Mr. KYL. Mr. President, after their two speakers, Senator ALLARD will be next.

The PRESIDING OFFICER. The Senator from Oklahoma is recognized for 4 minutes.

Mr. INHOFE. I will conclude in less time than that. I want to accommodate the wishes of others who want to be heard.

As I look at this, if we allow ourselves to be put in a situation where we do not know whether we have a nuclear deterrent, that is nothing short of unilateral disarmament. I know there are differing philosophies around here. I believe in the White House they honestly believe that if we all stand in a circle and hold hands and disarm, everybody is going to be happy. But I am not at all satisfied with that. I believe we need to have a nuclear deterrent.

Right now, we are faced with a situation where, because of the vetoes of this President, we don't have a national missile defense system. That is to say, if they should deploy one of these missiles from North Korea, China, or Russia, which takes 35 minutes to get here, we have no way of knocking it down. We would be dependent upon a nuclear stockpile to have something to send back that is more significant. And not knowing whether or not those weapons would work would be worse than knowing they would not work.

So the time is here to do it. I have applied this to my "wife test," which I often apply to things. I asked, "Can we take a chance on not being able to fire missiles?" She agrees with me, and she is never wrong.

Seeing the junior Senator from Texas, I recall something the senior Senator from Texas has said many times, which I think is very appropriate to quote at this time:

We have to remain strong. We all wish for the day and hope for the day when the lion and the lamb can lie down together. But when that day comes, I want to make sure we are the lion.

The PRESIDING OFFICER. The Senator from Texas is recognized.

Mrs. HUTCHISON. Mr. President, I thank my colleagues across the aisle for allowing me to go forward.

This is such an important debate. It is an important issue for our country but also for the world. There is no question the cold war ended with communism in full retreat and democracy on the rise throughout the world largely because the United States maintained an awesome military capability that deterred war.

No American should forget that our stockpile of safe and reliable nuclear weapons has deterred nuclear conflict for these past 50 years. When Saddam Hussein threatened to use weapons of mass destruction prior to Desert Storm, it was the certain knowledge that the United States would respond overwhelmingly that prevented Saddam Hussein from unleashing his own chemical and biological weapons.

This is a question of whether or not we, as a nation, intend to maintain our nuclear deterrent capability—so vitally important to us over the last 50 years in maintaining peace in the world—or if we intend to unilaterally disarm. Make no mistake, that is the question before us.

Our founders purposely made it hard to enter into treaties and required a two-thirds majority in the Senate for ratification. Thomas Jefferson wrote, "We had better have no treaty than a bad one."

I am afraid this test ban treaty is a bad one and it would be better not to have it. A treaty is permanent. It requires great vision and caution. Ratification of this test ban treaty would ultimately endanger our national security. I hope our citizens are paying close and careful attention.

There are really two questions before us: First, if we ratify this treaty, will the United States be able to maintain a safe, reliable, and credible nuclear capability? Second, will we be able to verify that this treaty is being enforced by other countries that have joined us? Unless both questions can be answered "yes," then we cannot possibly ratify this treaty.

On the issue of reliability, nuclear tests are the only proven method to assure confidence in the reliability and safety of our nuclear weapons. We have heard testimony to this effect from sci-

entists and other experts. They worry that as we make advances in material science and component technology for these very complex weapons, the inability to test these advances through actual detonations will leave us with doubt about whether they will work if used.

This treaty prohibits all nuclear tests, even of the lowest yield. The new diagnostic tools are still unbuilt and unproven. Scientists admit with humility that actual tests have often radically altered their chalkboard theories drawn out in the laboratory. At this point, anything short of testing is not sufficient to assure reliability and safety. Reliability of our weapons means they will work as intended. So it is clear that reliability is key to our national strategy.

My second concern is that once the United States ratifies this treaty, we will stop testing our weapons because we abide by treaties, but rogue nations will not. Several countries that signed the Nuclear Non-Proliferation Treaty, agreeing not to produce nuclear weapons, violated the treaty. They built the nuclear weapons anyway. Now we are expecting them to sign this treaty and agree not to test.

I agree with Dr. Kathleen Bailey of Lawrence Livermore Labs, who noted in testimony before the Armed Services Committee that this treaty expects nations to "agree not to test weapons they previously agreed not to acquire."

The Secretary of Defense has acknowledged in his own testimony that "we would not be able to detect every evasively conducted test."

In fact, I pursued this direct line of questioning with former Chairman of the Joint Chiefs of Staff, John Shalikashvili, in Defense appropriations hearings on March 5, 1997. He was the Joint Chiefs Chairman at the time, and he did his best. But even then, he could not say he would guarantee the safety.

General Shalikashvili said, "With each year that goes by and we are further and further away from having done the last test, it will become more and more difficult. That is why it is very important that we do not allow the energy budget to slip, but continue working on this science-based stockpile verification program and that we get this thing operating. But even then, Senator, we won't know whether that will be sufficient not to have to test. What we are talking about is the best judgment by scientists that they will be able to determine the reliability through these technical methods."

I then asked him, "Do you think we should have some time at which we would do some testing just to see if all of these great assumptions are, in fact, true?"

General Shalikashvili responded, "I don't know. I won't pretend to understand the physics of this enough. But I did meet with the nuclear laboratory

directors and we talked about it at great length. They are all convinced that you can do that. But when I ask them for a guarantee, they cannot give it to you until all of the pieces are stood up."

He continued, "Obviously if we stand it up and we cannot do that, then we will have to back the President and say we will have to test. Hopefully it will work out. But we are still a number of years away before we will have that put together so that we can tell you for sure it will not work or it will."

I said, "Well, mark one Senator down as skeptical."

General Shalikashvili responded, "Mark one Chairman of the Joint Chiefs of Staff joining in that skepticism. I just don't know."

Mr. President, "just don't know" is being unsure. Close is not good enough. It is not good enough when you are talking about a permanent treaty and when it comes to nuclear safety.

The recent letter to the majority and minority leaders from six former Secretaries of Defense of both parties was even more chilling. This letter from six former Secretaries of Defense from both parties:

As the Senate weighs whether to approve the Comprehensive Test Ban Treaty (CTBT), we believe Senators will be obliged to focus on one dominant, inescapable result were it to be ratified: over the decades ahead, confidence in the reliability of our nuclear weapons stockpile would inevitably decline, thereby reducing the credibility of America's nuclear deterrent.

They go on to say:

The nuclear weapons in our nation's arsenal are sophisticated devices, whose thousands of components must function together with split-second timing and scant margin for error. A nuclear weapon contains radioactive material, which in itself decays, and also changes the properties of other materials within the weapon. Over time, the components of our weapons corrode and deteriorate, and we lack experience predicting the effects of such aging on the safety and reliability of the weapons. The shelf life of U.S. nuclear weapons was expected to be some 20 years. In the past, the constant process of replacement and testing of new designs gave some assurance that weapons in the arsenal would be both new and reliable. But under the CTBT, we would be vulnerable to the effects of aging because we could not test "fixes" of problems with existing warheads.

I think it is clear from the experts, from former Secretaries of Defense and from former Chairmen of the Joint Chiefs that they cannot give us a guarantee.

We are talking about nuclear safety. We are talking about the major tool we have for deterrence. We are talking about the security of the United States of America, and we have a treaty before us that is permanent.

How could we go forward with a treaty such as this with these kinds of questions? Close is not good enough when we are talking about permanence, and when we are talking about our own national security.

In fact, when it came to a test-ban treaty, President Reagan and other

Cold War Presidents supported a ban only on high-yield nuclear tests. These tests would be of sufficient explosive power to be detected and identified by the sophisticated equipment designed to monitor underground explosions.

Under that proposal, lower yield tests would be permitted, to help ensure that our weapons were reliable. It makes sense not to ban low-yield tests because they're too small to detect and identify with the monitoring equipment. That was a sensible approach that has unfortunately been discarded by the Clinton Administration.

In fact, just last month, it appears the Russians may have conducted low-level nuclear tests at an Arctic test site. I say "may have" because the Central Intelligence Agency has concluded that seismic sensors and other monitoring equipment simply can not provide the data needed to know for sure.

Supporters of the treaty say it will result in a more extensive monitoring program, including inspections by experts. But a more extensive inspection system is not going to increase our capability to detect violations in advance. And having the right to request on-site inspections of test facilities doesn't give any added assurance of verification either. Let's face it: We've had that right in Iraq for the last eight years, and it's not worth the paper it's printed on.

Look at recent events in North Korea as an example of this Administration's policy of buying compliance with treaties and agreements. That policy has actually promoted nuclear and missile proliferation.

When the administration became convinced North Korea was building a nuclear device, in violation of their commitments under the Nuclear Non-Proliferation Treaty, it threatened a variety of sanctions.

The North Koreans responded that sanctions were tantamount to a declaration of war and soon we were at the negotiating table with this rogue nation. Prior to their possession of a nuclear weapon, it had been a tenet of our foreign policy for over 40 years that the United States would not negotiate directly with the North Koreans without our South Korean allies at the table.

However, once it became clear that North Korea was trying to enter the nuclear club, we began to negotiate. We set a lavish buffet of incentives—cash transfers, fuel, helping them build safer nuclear reactors. This began a dangerous cycle in which the North Koreans threaten to act badly and we bribe them not to.

After that pattern, despite our warnings and threats, Pakistan soon thereafter tested a nuclear weapon and claimed membership in the nuclear club.

As former Majority Leader Bob Dole has pointed out, "We refer to states as rogue regimes because they regularly violate international law and refuse to be held accountable to international

norms. The best way to deal with them is to deter them."

This treaty will not end nuclear testing. A "feel good treaty" doesn't make the world a safer place. The world is safer only when America is strong. A critical element of our military strength is a credible nuclear capability. This treaty will not result in a nuclear weapons free world. It will only result in a nuclear weapons free America, and that would be a much more dangerous world.

I urge my colleagues not to go forward with this treaty that we will have to abide by, on a permanent basis, not knowing if we will be able to keep our arsenal up to date and safe. This is a chance we cannot afford to take as the stewards of the national defense of our country.

I urge my colleagues to vote no on this treaty if it does come forward.

Once again, Mr. President, I thank Senator ALLARD from Colorado, Senator LEVIN, Senator DORGAN, and all who have allowed me to speak.

The PRESIDING OFFICER (Mr. HAGEL). The Senator from Michigan.

Mr. LEVIN. Mr. President, I thank the Chair.

I wish to begin also by thanking the chairman of the Senate Armed Services Committee, Senator WARNER, for holding 3 days of hearings on the Comprehensive Nuclear Test-Ban Treaty. These hearings were well balanced and very informative. They were also very much overdue. But at least we have begun the process of exploring this treaty.

What do we know after 3 days of those hearings?

We know the best professional judgment of our senior military leaders is that the Comprehensive Nuclear Test-Ban Treaty is in our Nation's national security interest. The best professional judgment of our senior military leaders, civilian and uniform, is that we are better off with this treaty than without it. We know after these hearings that the Comprehensive Test Ban Treaty will make it harder and more expensive for other countries to maintain existing stockpiles. We know the treaty would make it harder and more expensive for nations that do not yet have nuclear weapons to develop and deploy those weapons. We know that the treaty, as all treaties, is not perfectly verifiable. But we also know that tests conducted below our level of detection would not militarily disadvantage the United States.

That doesn't come from me, although I believe it. It comes from our senior military leaders.

We know that our overall monitoring and verification capabilities are very capable today and will improve with the entry into force of the treaty. We know, despite a 7-year moratorium on nuclear testing, that the U.S. nuclear stockpile remains safe and reliable today. We haven't tested in 7 years. We have relied on our Stockpile Stewardship Program. That program is up and

running. We rely on it every year for a certification that our stockpile is safe and reliable.

This isn't some future concept that is being discussed. It is a Stockpile Stewardship Program that is, of course, not finished. It may never be finished. But it has made significant progress. We rely on it. We have invested billions in it. And our lab Directors have said three times, based on a Stockpile Stewardship Program that we now have up and running, that our nuclear inventory is safe and reliable. Without that stewardship program, they cannot make those certifications now on which we so heavily rely.

So the Stockpile Stewardship Program is already serving as a basis for certifying safety and reliability of this stockpile. We also know that its capabilities will improve substantially in the future, but that if at any point in the future the Stockpile Stewardship Program is not adequate to certify the safety and reliability of our stockpile at that point under the guarantees that are in the letter from the President—and that we will write into the ratification resolution—then the United States will exercise its supreme national interest clause and begin testing again.

We have informed every signatory that is what we will have the right to do. We have put all the parties on notice as to what our supreme national interest is. We have said that if we can't certificate safety and reliability without testing—and we believe that we can do it without testing—we will then return to testing.

We also know there is no military requirement for the United States to resume testing at the present time and there are no plans to resume testing with or without a Comprehensive Nuclear Test-Ban Treaty.

Most important of all, we know that if we do not ratify this treaty, we will miss an opportunity, which is a historic opportunity, to stem the tide of nuclear proliferation, and we will instead be encouraging a new and possibly worldwide nuclear arms race.

Prohibition of nuclear weapons tests have been the goal of Presidents since President Eisenhower. It was President Eisenhower who said almost 40 years ago that not achieving a nuclear test ban, in his words, "would have to be classed as the greatest disappointment of any administration of any decade of any time and of any party."

The whole world, including nuclear weapons powers and countries that might want to become nuclear weapons powers, will be watching what the Senate does with this treaty. Our action is going to affect the willingness of other nations to ratify the treaty and our ability to persuade other nations to refrain from future nuclear testing. Rejection of this treaty will have a profound negative impact on the battle against proliferation of nuclear weapons.

We urge other countries—particularly, most recently India and Pakistan—to give up nuclear testing, to sign this treaty. India and Pakistan test weapons and we say: Stop it for your sake, for the world's sake. It is a road you should no longer walk. It is a road which could lead to your mutual total destruction and could spread to other parts of the world.

We make those pleas to India, Pakistan, and other countries. How in the world can we expect other countries to refrain from nuclear testing if we are unwilling to do so? How will we have any standing to ask India, Pakistan, China, and other countries to stop nuclear testing for the sake of the world, for the sake of our kids, and their kids? How would we have the gall to ask other countries to refrain from testing if we, ourselves, are unwilling to do so?

Our Secretary of Defense, our Joint Chiefs, four former chairmen of the Joint Chiefs—including General Shalikashvili, General Powell, Admiral Crowe, General Jones—have reviewed this treaty and have told the Senate Armed Services Committee that they also support this test ban treaty. General Shalikashvili's name was brought in by the Senator from Texas. I want to read what General Shalikashvili said this week. We heard what he said 2 years ago; now let's see what he says today. By the way, it is even stronger than where he was leading 2 years ago.

In short, the chief and I have supported this treaty, together with the safeguards package, because it answered our military concerns and because our country is better off with this treaty than it is without it.

That is General Shalikashvili putting in a nutshell what the issue is: Is this country better off with or without this treaty? His answer is, it is.

General Shelton, who is the current Chairman of our Joint Chiefs, testified as follows before our committee:

This treaty will help limit the development of more advanced and destructive weapons and inhibit the ability of more countries to acquire nuclear weapons. It is true that the treaty cannot prevent proliferation or reduce current inventory, but it can restrict nuclear weapons progress and reduce the risk of proliferation.

In short, our top uniform military official says the world will be a safer place with the treaty than without it, and it is in our national security interests to ratify the treaty.

Secretary Cohen, at the same hearings this week, testified that the treaty would restrain other nations from creating and building nuclear arsenals. He said:

By banning nuclear explosive testing, the treaty removes a key tool that a proliferator would need in order to acquire high confidence in its nuclear weapons design. Further, the treaty helps make it more difficult for Russia, China, India and Pakistan to improve existing types of nuclear weapons and to develop advanced new types of nuclear weapons. In this way, the treaty contributes to the reduction of the global nuclear threat. Thus, while the treaty cannot prevent proliferation or reduce the current nuclear threat, it can make more difficult the devel-

opment of advanced new types of nuclear weapons and thereby help cap the nuclear threat.

Opponents of ratification have raised two major arguments. They contend other nations could cheat because a low-yield nuclear test might not be picked up by our sensors; and second, we need to conduct nuclear tests in order to maintain the safety and reliability of our nuclear stockpile.

General Shelton and Secretary Cohen, on the basis of current intelligence information, have said that we would be able to detect any militarily significant level of nuclear testing. Secretary Cohen explained the conclusion this way:

Is it possible for States to cheat on the treaty without being detected? The answer is, yes. We would not be able to detect every evasively conducted nuclear test, and from a national security perspective we do not need to.

This is his conclusion.

Secretary Cohen said:

I believe that the United States will be able to detect a level of testing, the yield and the number of tests by which a state could undermine the U.S. nuclear deterrent.

General Shelton also pointed out that the treaty, if it comes into effect, will increase our ability to observe and monitor tests because it will create an international monitoring system of over 300 monitoring stations in 90 countries.

Some refer to information developed by the intelligence community over the last 18 months. I specifically asked the Chairman of the Joint Chiefs and the Secretary of Defense whether or not their testimony, their opinion, includes consideration of all of the intelligence community's information that has been gathered in the last 18 months and before.

Secretary Cohen states:

I have been apprised of all the developments. I am not aware of any information at this point that would call into question our ability to maintain our strong nuclear deterrent, that any balance has shifted or would call into question our ability to defend ourselves.

With regard to the safety of the stockpile, it is now safe, it is certified as safe, even though we have done no testing since 1992.

The answer of the heads of our laboratories—when I directly asked them this question: Are you signed on to this treaty?—was:

Yes, provided the safeguards are written into the ratification resolution and providing there is robust funding of our safeguards and our stockpile security program.

The lab Directors are, in the words of one of them, "on board" under those conditions and those conditions now exist.

My friend from Virginia apparently has a question, and I yield.

The PRESIDING OFFICER (Mr. INHOFE). The Senator from Virginia.

Mr. WARNER. Earlier, my distinguished colleague referred to General Powell. I have had the opportunity to be counseling with General Powell, so-

liciting his views, and he has been soliciting mine for some several days. He just telephoned me because he is watching this debate. He authorized me to say the following, that in view of the mounting conflicting testimony—primarily before the Senate Armed Services Committee in the course of the three hearings which my colleague is now addressing and I shall address at some point here—in view of the mounting conflict of testimony, particularly as it relates to the credibility of this deterrent and, indeed, safety issues—we need only look at the testimony by the lab Directors yesterday—he has authorized me to say at this time he joins those who recommended the delay of final consideration of the treaty at this point in time.

That should be clearly understood. He feels it should not be killed because he thinks, hopefully, if it is modified in certain ways, that it can be another brick in our walkway leading towards nonproliferation and stronger arms control regimes. However, at this time, he wishes to be on record as saying the Senate should not act and should not act because of the mounting conflicting testimony on the key essential elements that he and other uniformed officers—I addressed this earlier in the safeguards provision and likewise, which says at some point in time a President could withdraw from this treaty because of information brought to his attention.

So that is an important part of the treaty. It is under the "supreme" clause, which is in all of our treaties, but it is amplified. So I just wanted to correct the record.

Mr. LEVIN. You are not correcting the record at all. You are amplifying the record, if I may say to my good friend from Virginia.

Mr. WARNER. You said he supported the treaty but at this point in time—

Mr. LEVIN. I said he supported the treaty; and I am glad to hear he supports delay in the vote, and I hope our colleagues will listen to both of his statements, both that we should not now vote on this treaty—because he is correct for many reasons—and also I hope they will listen to his statement of January 27, 1998, when he, along with General Shalikashvili, former Chairman Crowe, and former Chairman Jones said the following:

On September 22, 1997, President Clinton submitted the Comprehensive Nuclear Test Ban (CTB) Treaty to the United States Senate for its advice and consent, together with six Safeguards that define the conditions under which the United States will enter into this Treaty. These Safeguards will strengthen our commitments in the areas of intelligence, monitoring and verification, stockpile stewardship, maintenance of our nuclear laboratories, and test readiness. They also specify the circumstances under which the President would be prepared, in consultation with Congress, to exercise our supreme national interest rights under the CTB to conduct necessary testing if the safety or reliability of our nuclear deterrent could no longer be certified.

This is his conclusion, General Powell, on January 27, 1998:

With these Safeguards, we support Senate approval of the CTB Treaty.

Those are his words. I am glad to have this printed in the RECORD and I am happy to hear at this point, at least, General Powell does support the delay in the vote. I think that is a wiser course to take for three reasons, and I will conclude with those reasons.

Mr. WARNER. The reasons he gave me are in view of the conflicting testimony that has evolved since the point in time at which he made that statement. That is the predicate on which he now thinks the vote should be delayed.

Mr. LEVIN. There are at least three predicates I would support for delaying this treaty. I am glad to hear he reaches the same conclusion for whatever reason he wants to give now.

Mr. WARNER. They are very important reasons, Mr. President.

Mr. LEVIN. I am not going to comment on his reasons. I am delighted he reached the conclusion he did. I disagree with his reasoning as to how he reached his conclusion because I think the evidence is overwhelming, and the testimony, if anything, has grown stronger. In fact, one of the arguments against this treaty is that we need somehow to defeat it in order to protect our allies; that they are relying on our deterrent—which, of course, they are—that somehow or other our allies would be disadvantaged if we ratified this treaty.

Yet three key allies have taken an unusual step. I do not remember when this has ever happened, when the heads of three states closely allied with us have urged this Senate directly to ratify a treaty. Yet that is what they are now doing.

We have heard arguments for the last few days: Look how important our strategic deterrent is, not just to us, which it is, but to our allies, which it has been and will continue to be.

What does President Chirac say and what does Prime Minister Blair say and what does Chancellor Schroeder say? They say: We need this treaty, Senate. They are directly addressing the U.S. Senate. I do not remember that ever happening.

Mr. MOYNIHAN. Never.

Mr. LEVIN. Directly, directly asking the U.S. Senate to ratify the comprehensive test ban.

What do they say:

Rejection of the treaty in the Senate would remove the pressure from other states still hesitating about whether to ratify it. Rejection would give great encouragement to proliferators. Rejection would also expose a fundamental divergence within NATO.

The United States and its allies [they say] have worked side by side for a Comprehensive Test Ban Treaty since the days of President Eisenhower. This goal is now within our grasp. Our security is involved as well as America's. For the security of the world we will leave to our children, we urge the U.S. Senate to ratify the treaty.

So much for the argument that somehow or other defeating this treaty is not only good for us but it is good for

our allies. Not in their view, it is not. Not in my view, it is not. And I hope not in the view of the majority of this Senate.

But I want to go back to the delay, and I am going to wind up because I do happen to agree, we should not vote on this treaty at this time—for a number of reasons.

First of all, because it would be tragic to reject this treaty, and if it comes to a vote now, it is going to be rejected. It would be tragic for our security—that is our top military leaders saying that, and I feel that keenly. It would be tragic for the world for us to defeat this treaty. It would reverse the direction in which we are heading, which is an ongoing effort to try to reduce the threat of proliferation of nuclear weapons. That effort, which I hope all of us share, will be damaged severely if we reject this treaty. And because we will reject this treaty if it comes to a vote, I think we should delay it.

No. 2, this treaty should not be involved in any way in Presidential politics, partisan politics, political meanderings, conflicts. We ought to be looking at this treaty based on its merits without this political environment being heeded. We cannot and are not doing that at this moment. It is a good reason to delay this treaty.

We delayed the Chemical Weapons Convention. The reason we delayed our vote, even though it was scheduled—and I tell my good friend who is presiding, even though we had actually scheduled a vote on the Chemical Weapons Convention, by unanimous consent I believe, too—when Senator Dole came out against that Chemical Weapons Convention shortly before we were voting, and while he was running for President, we decided as a Senate we would delay that vote until after that Presidential election.

We then, taking calm deliberation, adding conditions, reservations—we then ratified that treaty. We took the time to do it. In fact, we spent a lot of time in the Old Senate Chamber, as I remember, as part of that deliberation. We should do that here.

The third reason we should not proceed to vote at this time is that we as a Senate have a responsibility to deliberate on a treaty. We put ourselves in a position, through a unanimous consent agreement, where we could not do that adequately. I think that was a mistake. But we do not have to compound our mistakes and make a worse mistake by voting on it just because we agreed to a unanimous consent agreement that we would begin the debate on it. That does not force us to proceed to vote on that treaty.

We have done some good with this unanimous consent agreement already, although I believe, looking back, it was a mistake to constrain ourselves as we did—that we could not add amendments other than one on each side, could not add reservations, could not add conditions, and so forth. What we

have done as an institution is to put ourselves in a straitjacket with this unanimous consent reservation, which is not in keeping with the great traditions of the Senate. Senator BYRD, Senator MOYNIHAN, and others made that point. I think they made it eloquently. I keenly believe it. We have a responsibility here to deliberate on a treaty, to be open to considering conditions, qualifications, reservations, statements—to complete our committee work.

My good friend from Virginia knows—in fact he was the one, I think, who brought this out—we are currently in the middle of receiving a national intelligence estimate which is not yet completed. We should see that completed. We should have whatever hearings are needed.

By the way, we should have a committee report. I cannot remember a treaty which has ever come to the floor of the Senate—at least of this magnitude—without a committee report. On the Chemical Weapons Convention, we had a committee report of 350 pages for consideration by this body. We do not have one page from any of the committees.

So it seems to me it makes the most sense for us, under these circumstances—I am going to be perfectly candid; one of the reasons that compels me is that I believe if we voted now, this would be defeated. I think that would be a tragic setback in the fight against proliferation. But there are other very important institutional reasons, which I hope will appeal to others, that we should not ever as a body put ourselves in a position where we need to vote, or have to vote, on something which is not ready to be voted on.

Mr. WARNER. Mr. President, if the Senator will yield on our time. The distinguished ranking member of the Armed Services Committee and I, the distinguished ranking member of the Foreign Relations and Senator MOYNIHAN—a group of us are trying to work on a framework for the purpose of our two respective leaders, and, indeed, the President is involved.

Yesterday, in the course of our hearings, I addressed my concern—I support the delay of the final consideration, as now under the UC, but I am also very concerned that whenever the Senate resumes consideration of this treaty it be done in a time period after careful records have been created on this treaty and questions that concern General Powell about the conflict of testimony have been resolved to the best of our ability, and that it not be done under the dynamics of the U.S. constitutional process of electing a President and the Members of the Congress. That is the thing that concerns me. Those dynamics might, in all fairness, affect the outcome of this treaty which could be adverse to the national security interests of this Nation and our allies who depend upon us.

In searching for the format of a consensus to move off the UC consent of

having the vote next week, we need to address that issue. Will my dear colleague say exactly what he did in open session yesterday about how he basically endorses my concerns over the year of the national elections under our Constitution?

Mr. LEVIN. As I said yesterday, indeed, the day before, in the absence of circumstances that I cannot foresee—

Mr. WARNER. Primarily, Mr. President, international intervention of some type.

Mr. LEVIN. No, I do not limit it to that.

Mr. WARNER. Each Senator has an opportunity to address that.

Mr. LEVIN. That is correct. But in the absence of circumstances I cannot foresee, I would oppose bringing this treaty up next year for the reasons I have given. In conclusion, at a minimum, I believe we should do no harm. At least let us do no harm in the battle against proliferation. Bringing this treaty up now for a vote—not for debate, which we are doing under a UC, but for a vote—in my judgment, would do harm to the battle against the proliferation of nuclear weapons. I hope we will be able to find a way that we not reach that vote. I yield the floor.

Mr. WARNER. Mr. President, I concur in my good friend's comments. In other words, I have been urging him to say these things for some time. I thank him because this is very helpful as I and other Senators, hopefully with him, continue to work to provide our leadership with a framework within which this can be achieved.

Mr. LEVIN. If I can have 10 more seconds, I have not been reluctant at all to say this over the last few days. I have been very open about my feelings on this issue and that bringing this treaty to a vote now would do harm. I join my friend from Virginia in that belief.

The PRESIDING OFFICER. The Senator from Delaware.

Mr. BIDEN. Mr. President, if it will help my colleagues, we have been trying to equalize this. I am about to yield to Senator DORGAN for 15 minutes, but I say to Democrats who are waiting to speak, we have Tuesday as well. I will be yielding in the 5-to-7-minute range for people who wish to speak after this, if people want to speak. We will reserve enough time at the conclusion of this debate.

I yield 15 minutes to Senator DORGAN who has been, quite frankly, the leader on our side of this issue who has been trying very hard for a year to get us to this point of debate. I yield 15 minutes to my friend from North Dakota.

The PRESIDING OFFICER. The Senator from North Dakota.

Mr. DORGAN. Mr. President, for all the anxiety that is expressed in this Chamber about when we might vote and the consequences of that vote, I at least observe that we are finally on the right subject. This is an important issue. This is an important matter for the Senate to consider. There are big

issues and then there are small issues. There are important issues and some not so important. Stopping the spread of nuclear weapons, in my judgment, is a big, important issue.

Will the United States of America be a leader, will it assume its moral responsibility in the world to provide leadership to stop the spread of nuclear weapons and reduce the risk of nuclear war? That is the question before the Senate.

Sadly, some in this Chamber answer that question by saying: No, not us, not now. In fact, some, if you look at their record on arms control agreements say: Not us, never.

This treaty is not so difficult to understand, despite the protestations of some.

Forty years ago, President Eisenhower called for a treaty of this type. Seven years ago, the United States decided we would unilaterally stop the testing of nuclear weapons. Nearly 5 years ago, our country was a leader in convening nations to negotiate a comprehensive test ban treaty. Two years ago, that Comprehensive Test Ban Treaty was sent to the Senate for ratification. Not 1 day of hearings was held in the Senate Foreign Relations Committee in 2 years—not 1.

Then abruptly, 10 days ago, we were told there would be 14 hours of debate and 10 days hence we would have a vote on the Comprehensive Test Ban Treaty.

That was not and is not a thoughtful way for the Senate to deal with this issue, especially an issue of this importance.

Now to the debate. Mark Twain once said when asked if he would participate in a debate: Absolutely, provided I can take the negative side.

They said: We have not told you what the debate is about.

He said: It doesn't matter, you don't need time to prepare for the negative side.

I will not ascribe those motives to those who are strongly in opposition to this treaty, but some of the charges and allegations made just seem, to me, to be preposterous. I heard an hour or so ago in this Chamber the term "unilateral disarmament" applied to the U.S. ratifying this treaty. What a preposterous charge, unilateral disarmament.

Let's look at who supports this treaty. I heard a discussion about Gen. Colin Powell. Gen. Colin Powell supports this treaty. He said so. We have the date, the time, the place, the statement. He now, apparently, in a telephone call he said he would like to defer the vote because of questions raised in hearings, hearings that were 2 years in the making. Gen. Colin Powell, General Shalikashvili, the last four Chairmen of the Joint Chiefs of Staff; General Shelton, the present Chairman and the Secretary of Defense—all of whom say they support this treaty. Why? Because they believe this treaty protects this country's security inter-

ests. They believe this treaty is in this country's interest.

I will read some statements because those who come to the floor talking about the military consequences of this treaty need to understand to what all the senior military leaders in this country now testify.

The Joint Chiefs, the senior military leaders in this country, say:

In a very real sense, one of the best ways to protect our troops and our interests is to promote arms control. . . . In both the conventional and nuclear realms, arms control can reduce the chances of conflict. . . . Our efforts to reduce the number of nuclear weapons coincide with the efforts to control testing of nuclear weapons. . . . The Joint Chiefs support the ratification of this treaty.

Colin Powell and others in January 1998 said:

We support Senate approval of the CTBT.

Gen. Colin Powell supports the ratification of this treaty. We are told he wants the vote delayed. So that does not change the fact that he is on record saying he supports the ratification of the Comprehensive Test Ban Treaty.

What about monitoring? We hear all this noise about if we ratify this treaty, countries will cheat.

Our military leaders—and certainly the scientists—but especially our military leaders say that if we ratify this treaty, we will have monitors all around the world.

I show the situation on these charts: Here are the monitors without ratification; here are the monitors with ratification. The number of monitors is dramatically enhanced. The ability to detect nuclear tests, detect cheating will be dramatically enhanced. No one that I know of can credibly or thoughtfully argue that we are not enhancing our capability in this country by ratifying this treaty.

What about the scientists? Thirty-two Nobel laureates in physics and chemistry, the most powerful intellects in this country were at the White House a couple of days ago. One who testified yesterday worked on developing the first nuclear bomb; one who testified the day before invented radar and then invented the laser—what do these scientists tell us about this treaty? They say: Ratify this treaty. This treaty is in the country's best interest.

Scientifically, they tell us that we can safeguard our nuclear stockpile; we can more effectively monitor tests around the world. They say, without equivocation: Ratify this treaty. That is from scientists.

What about the American people? Surveys show 80 percent of the American people say: Ratify this.

It is interesting to me, military leaders do not count; scientists do not count; the American people do not count. There is this cold war mentality, I guess, that nothing has changed. Some who have never supported an arms control agreement are back here again today saying this will not work either.

Other arms control agreements have worked, and we know it. We have seen

the destruction of nuclear weapons by sawing wings off bombers, by destroying missiles and warheads, and not by hostility but by arms control agreements that call for reducing the numbers of nuclear weapons. That has happened. These arms control agreements have been successful. This treaty will be successful if this Senate will ratify it.

The support of military leaders and scientists—and, for that matter, the American people—seems to matter little in this Chamber. The scientific opinion of the most respected scientists in the world are second-guessed by those who believe they can understand this issue in a matter of a day or two.

Thirty-two Nobel Prize winners, two seismology organizations, three current weapons lab Directors, the Secretary of Energy, the Joint Chiefs of Staff, and the Secretary of Defense all have a common position on this country's ability to solve the scientific and technical tasks required in this test ban treaty; and all of them say that this treaty is in the country's interests.

The spread of nuclear weapons, that is what all this is about—stopping the spread of nuclear weapons. India and Pakistan detonated nuclear weapons not too long ago under each other's chin. These are two countries that do not like each other. Ought that not send some fear all around the world about the proliferation of nuclear weapons?

Or maybe some do not understand nuclear weapons. They think that they are just bombs. There is an Indian author named Arundhati Roy who is one of the most acclaimed young authors in the world right now. She writes about a nuclear attack and nuclear weapons. Let me read some of this for a moment. She talks about the sentiments of survivors of a nuclear attack:

What shall we do then, those of us who are still alive? Burned and blind and bald and ill, carrying the cancerous carcasses of our children in our arms, where shall we go? What shall we eat? What shall we drink? What shall we breathe?

... There's nothing new or original left to be said about nuclear weapons. ... (But) under the circumstances, silence would be indefensible. Let's not forget that the stakes we're playing for are huge. Our fatigue and our shame could mean the end of us.

We have a responsibility as a country. Those who raise arguments I have heard today—I wonder how can they sleep at night, if they believe our nuclear weapons are unsafe.

A physicist yesterday said: We have had them for 40 and 50 years. We know how they work. We know how to safeguard them. We know how to keep them over time. Yet we have people on the floor of the Senate talking about the fact that the stockpile may not be safe.

One of my colleagues said: Drop some of them on your State. You think they'd work? Of course they would. You would not, in a million years,

guess about whether it would detonate on your State if a nuclear weapon were aimed at your State. We know our stockpile works and is maintained at great cost.

Cannot monitor? Nonsense. That does not even deserve much of a response. Everybody says our monitoring will be enhanced.

Unilateral disarmament? Rubbish. There is nothing here that suggests that. This country already decided we were not going to test 7 years ago.

The question now is, Will we give others a green light to test? We decide that we won't test, but we will refuse to ratify a treaty that says to others: We don't want you to test either.

It is a curious set of circumstances by which this comes to the floor.

Every other arms control issue has been dealt with seriously.

The ABM Treaty: 8 days of Foreign Relations Committee hearings, and 18 days of Senate debate on the floor of the Senate.

The Intermediate Nuclear Forces Treaty in 1988: 23 days of committee hearings in the Foreign Relations Committee; 2 days of Senate floor consideration.

START I: 19 days of hearings; 5 days on the Senate floor.

START II: 8 days of Foreign Relations Committee hearings; 3 days on the Senate floor.

Chemical weapons: 14 days of hearings; 3 days on the Senate floor.

NATO enlargement: 7 days of hearings; 8 days on the floor.

The Comprehensive Test Ban Treaty: 2 years it was here. Not 1 day of hearings in the Senate Foreign Relations Committee during 2 years; and then we are told, 14 hours of debate.

The New York Times today has the spectacle—welcomed from my standpoint, by the way—but the spectacle of the leaders of England, France, and Germany asking us to assume our role as a leader, asking us to ratify the Comprehensive Test Ban Treaty.

No one ought to ask us to do what we have a responsibility to do. We ought not to be in the position of having other countries have to ask us to assume leadership in trying to stop the spread of nuclear weapons and reduce the risk of nuclear war. We ought to be leading on this issue, not following.

Omar Bradley, that great general said some many years ago, and it applies especially today, it seems to me:

The world has achieved a brilliance without conscience. Ours is a world of nuclear giants and ethical infants. If we continue to develop our technology without wisdom or prudence, our servants may prove to be our executioner.

Everyone in this Chamber knows our responsibility. Our duty—as the nuclear superpower on this Earth—our duty is to lead. And we cannot and we must not shrink from that duty ever.

There is great anxiety about what happens at the end of 14 hours, and what if, as some now speculate, many Senators, especially on the other side

of the aisle, decide they cannot support this treaty. Some say that would be a chilling, chilling result, with devastating results around the rest of the world.

I know this: This is a difficult, uncertain time, with many countries wishing to possess and acquire nuclear weapons. It is a difficult time, with India and Pakistan detonating nuclear weapons. It is a difficult time, with rogue nations and terrorist groups that want to threaten much of civilization.

We have unloosed the nuclear genie, and we must assume responsibility in providing an opportunity for the entire world to stop the spread of nuclear weapons. One way to do that—an important and effective way to do that—is to decide as a Senate to ratify this treaty.

The PRESIDING OFFICER. The Senator's time has expired.

Mr. DORGAN. Mr. President, I yield the floor.

Mr. KYL. Mr. President, I yield 15 minutes to the Senator from Colorado, Mr. ALLARD.

Mr. ALLARD. If the Chair will notify me when I have a minute left, I would appreciate it.

The PRESIDING OFFICER. The Chair recognizes the patient Senator from Colorado.

Mr. ALLARD. Mr. President, there are three areas I will respond to, contained in previous comments made on the floor. One has to do with the number of hearings we have had in relation to this issue. Another is what previous Presidents have accepted. Another is our ability to monitor what has happened as far as nuclear testing is concerned.

We have had hearings in the Armed Services Committee. I have served on that committee. I have been there personally. I know they have been there. We have had hearings in the Intelligence Committee. To make a statement that this has been brought to the floor without a hearing and discussion in committee is false. We have had those hearings. I believe I have been adequately briefed, as a Member of the Senate, on the pros and cons of moving ahead with the ratification of this particular treaty.

As far as previous Presidents pushing for a nuclear test ban, none of the Presidents, except for this President, has worked for zero tolerance. That is unprecedented. Because of that zero tolerance, it creates special problems for this country when it comes to monitoring. We have shown, through our own scientific testing, that it is possible, with low-level nuclear testing, it can be camouflaged. One can let off a low-level test without any kind of detection. When we get to a zero-tolerance level, this all becomes a problem, as far as monitoring. We do have real problems with monitoring.

This week we have begun the very important debate regarding the Comprehensive Test Ban Treaty, better known as the CTBT, and whether its ratification is in the best interest of

the United States. I believe this debate is timely. I have been studying the issue during the course of the last year; attended as many of the hearings as possible; carefully reviewed much of the record; and I listened closely to all my colleagues and the experts with their many varied opinions. After all this, I have come to the conclusion that the CTBT is not in the best interest of this country at this time.

As we move into the 21st century, America is confronting new and improved threats. More countries have acquired and are attempting to acquire weapons of mass destruction. This despite all the treaties in place today. Unfortunately, the reality of this threat means that the United States needs not a weakened nuclear deterrent but a stronger and more reliable nuclear deterrent.

During the cold war, we were in a bipolar strategic stance. It was the U.S. versus the Soviet Union. When we signed up to treaties, we were really only negotiating with the USSR. However, with the fall of the USSR, we are in a completely different strategic situation. Our main threats are rogue states whose goals are completely different than the former Soviet Union. I do not believe that these rogue states—Iran, Iraq, North Korea, and the like—really care if we ratify the CTBT. They will do what they believe is in their best interest.

For example, what do we do if we ratify the treaty and Iraq conducts a nuclear test? Some would say that we can punish them or shame them. How? Are we going to bomb them? Are we going to place heavy economic sanctions on them? To me, this treaty will do nothing to stop the people we want to stop from testing. While we do not need to go “*mano y mano*” anymore with another state in numbers of warheads, we do need to have a strong nuclear deterrent and to do this we need the technology and industrial base capable of assuring that our weapons stay strong. I believe we use the deterrent approach until we have the technology available to destroy a nuclear threat over the country of origin at which time it becomes a liability to the rogue country.

These requirements cannot be confidently met if the United States is obliged to adhere to a zero-yield and permanent CTBT. Despite what we have heard, no other administration has called for this treaty. President Eisenhower proposed a test ban but only for a limited duration. Neither President Kennedy nor President Johnson supported a zero yield test ban. President Nixon agreed to limit test above 150 kilotons and President Carter sought only a ten year ban with tests up to two kilotons. Presidents Reagan and Bush did not pursue a test ban at all.

The permanent zero-yield treaty has only been sought by President Clinton. And from my understanding, this has not been the position for the entirety of his administration. As recently as

1995, the Department of Defense position was that it could support a CTBT only if tests of up to 500 tons were permitted. However, the military chiefs were overruled by the civilian leadership after President Clinton agreed to a zero yield test ban.

This treaty prohibits all underground nuclear tests, even those so low that they cannot be confidently detected. If this treaty is ratified, we would be permanently prohibited from conducting the sorts of tests we have relied upon in the past to assure the safety, reliability, and effectiveness of our nuclear people.

Some of the CTBT proponents believe that the Stockpile Stewardship Program is the antidote to nuclear testing. This program supposes to be able to simulate nuclear explosions through the use of computer modeling. The estimate is that the program will cost at least \$4.5 billion a year over 10 years. While Stockpile Stewardship may be the answer in the future, the problem is that with any scientific experiment you must have a comparable element, and in this case a nuclear test. The best way to ensure that the Stockpile Stewardship program is working is to ensure that the results of the model match the results of a test. We must be able to calibrate the model before we should end all testing. I believe this is the height of irresponsibility.

With this being said, let me stress one major concern I have about the treaty, and regarding the 6 safeguards proposed by the President.

First, as a member of the Intelligence Committee and the Armed Services Committee, I believe the Comprehensive Test Ban Treaty submitted to this Senate by President Clinton is not verifiable. This means that, despite the vast array of expensive sensors and detection technology being established under the treaty, it will be possible for other nations to conduct militarily significant nuclear testing with little or no risk of detection.

What is militarily significant nuclear testing? The definitions of the term might vary, but I think we'd all agree that any nuclear test that gives a nation information to develop newer, more effective weaponry is military significant.

In the case of the United States, nuclear tests will yields between 1,000 tons and 10,000 tons are generally large enough to provide “proof” data on new weapons designs. Other nations might have weaponry that could be assessed at even lower yields. For the sake of argument, however, lets be conservative and assume that other nations would also need to conduct tests at a level above 1,000 tons to develop a new nuclear weapon design.

The verification system of the CTBT is supposed to detect nuclear blasts above 1,000 tons, so it would seem at first glance that it will be likely that most cheaters would be caught. We need to look at the fine print, however. In reality, the CTBT system will be

able to detect tests of 1,000 tons or more if they were nonevasive and take place at known test sites. This means that the cheater will be caught only if he does not try to hide his nuclear test. But, what if he does want to hide it? What if he conducts his test evasively?

From the hearings I have attended, it seems that evasive testing may be a very simple task for Russia, China, or others. One of the best known means of evasion is detonating the nuclear device in a cavity such as a salt dome or a room mined below ground. This technique—called decoupling—reduces the noise, or the seismic signal, of the nuclear detonation.

The change in the signal of a decoupled test is so significant—it can be reduced by as much as a factor of 70—that it will be impossible for any known technology to detect it. For example, a 1,000-ton evasive test would have a signal of a 14-ton nonevasive test. This puts the signal of the illicit test well below the threshold of detection. Decoupling is a well-known technique and is technologically simple to achieve. In fact, it is quite likely that Russia and China have continued to conduct nuclear testing during the past 7 years, while the United States has refrained from doing so.

If the CTBT were not going to affect U.S. capabilities, it would not be important whether the treaty were verified or not. The fact is, however, that the CTBT will freeze the U.S. nuclear weapons program and will make it impossible to assess with high confidence whether modifications made to the current stockpile will function as intended. And because there are limits to verifying compliance with the treaty, it will not effectively constrain other nations in the same way. That means they will ultimately be able to gain advantage, at the expense of the United States and our defensive posture.

Second, I want to touch on an issue that does not regard the text of the treaty, but the so-called six safeguards. I will not be able to get into detail on all of them, but it seems these safeguards have been discussed as if they were part of the treaty itself. In reality, these safeguards are just promises made by President Clinton. Even if they are contained in the Resolution of Ratification, these safeguards are still subject to congressional and budgetary pressures.

For instance, safeguard A states that the Stockpile Stewardship Program must be able to ensure a high level of confidence in the safety and reliability of nuclear weapons in the active stockpile. My concern is, what if the program runs into budgetary programs and a few Congressmen decide we are spending too much money on the program and attempt to kill the program?

Also, I know there are special interest groups that support the CTBT but oppose the Stockpile Stewardship Program and will put domestic political pressure on all of us to reduce and end

the Stockpile Stewardship Program and instead fund other programs.

Another example of budgetary and political pressures can be associated with a safeguard E. This safeguard insists on the continuing development of a broad range of intelligence gathering and analytical capabilities. This safeguard is already being tested. This administration already attempted to cancel the WC-135 aircraft, citing funding considerations. The WC-135 is essential to U.S. monitoring of nuclear tests. As a member of the Intelligence Committee, I fought for its continued funding. If safeguard E were taken seriously by this administration, they would not be attempting to cancel a program that is essential to monitoring, but would be fully funding these important programs.

For these reasons and many others, I must oppose this treaty—not because I want testing, but for the fact that I cannot yet rely upon an untested future program for the safety of our nuclear deterrent. Maybe one day I can support a zero-yield plan. But now is not the time.

Mr. President, I yield the floor.

The PRESIDING OFFICER. The Senator from Delaware.

Mr. BIDEN. Mr. President, I would like to ask my friend one question on my time, if he is willing.

Does the Senator believe that if we defeat this treaty and allow for continued testing, there will be the consensus in this Congress, or in any future Congress, to spend \$4.5 billion a year for the next 10 years to fund the Stockpile Stewardship Program?

Mr. ALLARD. I think that, right now, we have the desire within this Congress to continue to fund the stockpile program. I think many of us believe it is an option. It needs to be scientifically developed. We don't have the science there. I personally have that commitment. I also believe we are developing the technology where we can take our own defense systems—we can take our own rocket and meet it with another rocket that has a nuclear warhead on it, intercept it. Lately, we have begun to demonstrate our ability to do that.

I think ultimately we will be able to stop nuclear proliferation when we eliminate the threat of the nuclear warhead going over any other country other than the country from which it was shot. So if we shoot it off over the country from which the missile was launched, then the only hazard is to the country that has the warhead. When we develop that technical capability, then I think we will have a real deterrence. And I don't believe that is far away, by the way.

Mr. BIDEN. Mr. President, regarding that, I point out to my friend that the ability to do that is in direct proportion to the lack of a MIRV'd capability on the part of other countries—that is, other countries being able to put multi-reentry nuclear missiles on a vehicle to fire at us.

All of the technology and testimony from all sources has indicated that for countries that don't have that capability now to be able to move to that capability, which requires them to have a much lighter physics package, or nuclear package on top of a missile—it must be lighter, and it must have a boost capacity—in order for them to develop that, they will have to have testing which is detectable beyond anybody's doubt.

So I make the point that the ability to establish a credible missile defense is directly dependent upon the ability of us to keep other nations from developing the ability to have MIRV'd re-entry vehicles.

I yield 10 minutes now to my friend from Minnesota.

The PRESIDING OFFICER. The Senator from Minnesota is recognized.

Mr. WELLSTONE. Mr. President, my father, Leon Wellstone, was born in Odessa in the Ukraine. His family moved several times to stay ahead of the pogroms. Most of his earlier years he spent in Khabarovsk, Siberia, Far East Russia. He came to our country in 1914. He fled persecution. He never could go back home. In all likelihood, his parents were murdered by Stalin.

Mr. President, my father spent most of his life in our country in Washington, DC, and during the night of August 7, 1945, he wrote this essay to himself:

I ask unanimous consent it be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

On the day after Hiroshima, I endlessly wandered around town, dazed, lost, adrift. Like a man who suddenly lost all his earthly possessions, his family, his hopes; who is completely and inconsolably bereft; who is stupefied with misery of a depth and poignancy beyond words; who no longer knows where he is going to or why; who can think of nothing but appalling ruin, and nothing save the keenest anxiety and travail and death.

Then, too tired to walk any more, I headed for an old hotel downtown and came in and sat down. Some months ago I had discovered its lobby. It was shabby and ancient, full of old and creaky furniture that spoke of innumerable years of service bolstered by many fixings and patchings and new coats of paint.

Everywhere was evidence of age and wear and tear and fatigue. And yet, for all that, the lobby radiated an air of confidence and determined survival.

Whatever else was in question—an endless list!—one thing at least had appeared certain: that, though changing with the years in manner and pace, life would go on. It was infinitely comforting and appealing to think that it would.

Now that thought was rudely and cruelly shaken by the blast of a bomb. It was a thing we had only imagined in myths and fables. A fiery augury of the world's end. A revelation, stunning and merciless and naked, that this seemingly solid and enduring world of iron, brick, concrete, flesh and bone can vanish as quickly as a sizzling drop of moisture on a hot stove.

Try as I might I could not rid myself of direst premonitions, nor halt my urgent questionings, nor feel a measure of security

any longer, nor imagine how the outlook might brighten, nor decide how some peace of mind could be recaptured.

I sat there miles deep in searching thought, unaware of time's passing, hating to return to normal duties. What was the sense of hurrying now? Or the need or purpose to any activity? Why was I, of all men, so shocked and grieved? A life of doubt is possible. But a life of the keenest distress is not. I had found life and the society of men greatly wanting. I had been a pessimist, but now all this was pointless, irrelevant, outlandish.

Only he finds life wanting who also loves it. The idea that this world might soon be no more was an outrage on all logic. It made no sense that a thing of such scope and infinite variety should be doomed to final erasure. I did not care about my own life; I have lived most of it and might not live much longer. But there were the children. And natural beauty. And pictures in the galleries. And fine musical scores. And great books.

I thought of all this and looked about. Never had I felt the lobby so quaint, dear, beguiling. Now I liked its creaking chairs—music to my ears. I liked the shabby walls that have watched so long people drift in and out. I liked the ridiculous pictures on the walls with their flavor of bygone days. I liked the wornout rugs.

Why should I care if the world were turned to cinders? I, who had in the past thought on occasion that it had abundantly merited such a fate? Yet I cared—fiercely, greatly, vehemently. And I could not still my indignation or contain my bitter revulsion.

Finally I left the lobby. I could see nothing ahead but ruin. But outside, on the street, life was as ever. Oh, the wonder, stimulation, the comfort of the living scene when you had just thought of charred nullity!

There were tears in my heart.

Many people then were cheering after they dropped that bomb. I think my father was profound.

Leon, your words are part of the official CONGRESSIONAL RECORD, part of the Senate deliberations, and I believe your words have a poignancy and a relevancy to this historic debate on the floor of the U.S. Senate today.

Mr. President, three years ago, President Clinton became the first world leader to sign the Comprehensive Test Ban Treaty. On that day, the President praised the treaty as the "longest-sought, hardest-fought prize in the history of arms control."

We as a nation cannot afford to lose this valuable prize. With the ratification of the Comprehensive Test Ban Treaty, we have a unique opportunity in the Senate to help end nuclear testing once and for all. Ratification is the single most important step we can take—here and now—to reduce the threat of nuclear war, which is what my father was talking about.

The Comprehensive Test Ban Treaty is in the interest of the American people and it has widespread public support. It will strengthen our nuclear nonproliferation efforts by reassuring non-nuclear weapon states that states with nuclear weapons will be unable to develop and deploy new types of nuclear weapons. It will keep non-nuclear countries from deploying advanced nuclear weapons systems even if they have the capability to design them. Further, it will improve our ability to

detect any nuclear weapons test, with other countries paying 75 percent of the bill for the International Monitoring System.

Ratification will help push India and Pakistan to sign and ratify the Test Ban Treaty. This may be one of the few steps taken to bring these two countries back from the brink of nuclear war, until there is a resolution of the terrible conflict in Kashmir. Further, ratification by the Senate will encourage Russia, China, and other states to follow suit, just as we witnessed when the United States first ratified the Chemical Weapons Convention.

Some say ratification of the treaty is a bad idea because it would be too risky. They say the treaty is too risky because countries might cheat. As Secretary Albright said yesterday in the Foreign Relations Committee, "By approving the treaty, what exactly would we be risking? With no treaty, other countries can test without cheating, and without limit."

In 1963, President Kennedy negotiated the landmark Limited Test Ban Treaty with the Soviet Union to ban tests in the atmosphere. That year, he spoke of his vision of a broader treaty in his commencement address at American University. As he said:

The conclusion of such a treaty, so near and yet so far, would check the spiraling arms race in one of its most dangerous areas. It would place the nuclear powers in a position to deal more effectively with one of the greatest hazards which man faces in 1963, the further spread of nuclear arms. It would increase our security—it would decrease the prospects of war. Surely this goal is sufficiently important to require our steady pursuit, yielding neither to the temptation to give up the whole effort nor the temptation to give up our insistence on vital and responsible safeguards.

These words are as true today as they were in 1963. Some of the geopolitical circumstances have changed, the Soviet empire has collapsed, as have the names and the faces of those on the floor debating today. But, in other very important ways, the debate today is quite similar:

Then, as now, there were concerns about our ability to maintain a strong nuclear deterrent under the treaty;

Then, as now, there were questions about whether Moscow would cheat; and,

Then as now, there were concerns about the ability of the United States to effectively verify the Treaty.

Fortunately, the forces in favor of nonproliferation won that battle. The story since 1963 has been one in which our deterrent posture did not suffer, even though we gave up certain types of testing. Further, we gained the respect of the world for reining in the nuclear arms race. That achievement led five years later to U.S. diplomatic success in negotiating the Nuclear Non-Proliferation Treaty and the treaty banning nuclear weapons in Latin America—treaties that have been profoundly successful in constraining the proliferation of nuclear weapons.

Like our colleagues in the Senate in 1963, we must put away partisan politics and ratify the treaty before us. This Comprehensive Test Ban Treaty is a good treaty. It is not perfect, but no treaty produced by over a hundred countries will ever be. The benefits outweigh the risk. We must act on it.

I hope my colleagues who now oppose the CTBT, or who are undecided, will think hard about what the consequences would be if the treaty were not approved. I believe it is not an exaggeration to say that there will be jubilation among our foes and despair among our friends. North Korea, Iran, and Iraq will feel entirely without constraints in pursuing their nuclear aspirations. With China, we will have thrown away a valuable tool for slowing the modernization of its nuclear arsenal. We will have reduced our credibility on nonproliferation issues with Moscow when we have continually urged it to take proliferation seriously.

No matter what some of my colleagues in this body might believe, we cannot do this alone. We need cooperation from our European allies in controlling exports if we are to prevent states from acquiring nuclear weapons. France, for instance, which has ratified the CTBT, will be even less inclined to listen to us, if we walk away from the treaty, when we implore them to contain Iraq and Iran.

I urge each of my colleagues to think carefully before voting, put partisan politics aside, and to cast your vote on behalf of a safer world, and in favor of the Comprehensive Test Ban Treaty.

Mr. KYL. Mr. President, I ask unanimous consent that a series of letters be printed at an appropriate place in the RECORD.

These are letters from the six former secretaries of defense, former majority leader, Bob Dole, and Dr. Edward Teller, among others.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

SEPTEMBER 8, 1999.

Hon. TRENT LOTT,
Majority Leader, U.S. Senate,
Washington, DC.

DEAR SENATOR LOTT: We write to express the strong opposition of our organizations and the millions of Americans we represent to the Comprehensive Test Ban Treaty (CTBT).

As conservatives, we believe that the first responsibility of government is to provide for the common defense. This treaty will make it difficult, if not impossible, to maintain the safety and reliability of our nuclear deterrent—a military capability that has for fifty years been central to our defense, and that is likely to continue to do so for the foreseeable future.

President Clinton has explicitly embraced a policy he and former Energy Secretary Hazel O'Leary have called "denuclearization." In a 1996 report issued by the House National Security Committee, its chairman, Rep. Floyd Spence, warned that the effect of this policy is "erosion [of our nuclear deterrent] by design."

Were the United States to become party to a binding prohibition on nuclear testing, this policy would be made practically irreversible

and its insidious effects accelerated. Unfortunately, nations whose nuclear weapons programs cause us concern (e.g., Russia, China, North Korea, Pakistan, Iran, Iraq, etc.), however, would likely not be similarly affected. They generally are less concerned than we about the need for safety and effectiveness that has driven America's nuclear arsenal to be comprised of the world's most sophisticated weapons. Alternatively, they can always cheat without fear of detection, thanks to the CTBT's unverifiability.

We are also troubled by the evidence that many proponents of the CTBT seem to have more than unilateral American disarmament in mind. In a manner all too reminiscent of the nuclear freeze movement of the 1980s, left-wing activists and their allies appear intent on using the effort to compel the Senate to approve this Treaty as a device for energizing their political base. The stakes associated with this misbegotten accord are too great for it to be addressed in such a cynical way.

For all these reasons, we commend you for your strong opposition to the ratification of the Comprehensive Test Ban Treaty. We urge your colleagues to join you in taking the steps necessary to ensure that a safe and reliable nuclear deterrent remains a key ingredient in our common defense.

Sincerely,

Frank J. Gaffney, Jr., President, Center for Security Policy; David Horowitz, President, Center for the Study of Popular Culture; David A. Keene, Chairman, American Conservative Union; Grover Norquist, President, Americans for Tax Reform; Paul Weyrich, President, Free Congress Foundation; Morton C. Blackwell, Virginia Republican National Committeeman; Felita Blowe, Legislative Coordinator, Concerned Women for America; James H. Broussard, Citizens Against Higher Taxes; Kelly Anny Fitzpatrick, CEO & President, The Polling Company; Mark Green, Editorial Writer, Daily Oklahoman; Barbara Ledeen, Executive Director, Independent Women's Forum; Telly Lovelace, Director, External Affairs, Coalition on Renewal and Education; Martin Mawyer, President, This Nation; Mayor F. Andy Messing, Jr., USA (Ret.), Executive Director, National Defense Council Foundation; William J. Murray, Chairman, Government Is Not Good—PAC; C. Preston Noell III, President, Tradition, Family, Property Inc.; Ronald W. Pearson, President, Pearson & Pipkin, Inc.; Denesha Reid, Director, Public Policy and Research, Concerned Women for America; Phyllis Schlafly, President, Eagle Forum; Robert A. Schadler, President, Center for First Principles; Dick Simms, Director, Cornerstone; Rev. Louis P. Sheldon, Chairman, Traditional Values Coalition; Ann Stone, CEO, The Stone Group, Inc.; Jeff Taylor, Director, Government Relations, Christian Coalition; Timothy Teepel, Executive Director, Madison Project; Harry Valentine, President, Capitol Hill Prayer Alert.

October 6, 1999.

Hon. TRENT LOTT,
Majority Leader, U.S. Senate,
Washington, DC.

Hon. TOM DASCHLE,
Democratic Leader, U.S. Senate,
Washington, DC

DEAR SENATORS LOTT AND DASCHLE: As the Senate weighs whether to approve the Comprehensive Test Ban Treaty (CTBT), we believe Senators will be obliged to focus on one

WASHINGTON, DC,
October 5, 1999.

dominant, inescapable result were it to be ratified: over the decades ahead, confidence in the reliability of our nuclear weapons stockpile would inevitably decline, thereby reducing the credibility of America's nuclear deterrent. Unlike previous efforts at a CTBT, this Treaty is intended to be of unlimited duration, and though "nuclear weapon test explosion" is undefined in the Treaty, by America's unilateral declaration the accord is "zero-yield," meaning that all nuclear tests, even of the lowest yield, are permanently prohibited.

The nuclear weapons in our nation's arsenal are sophisticated devices, whose thousands of components must function together with split-second timing and scant margin for error. A nuclear weapon contains radioactive material, which in itself decays, and also changes the properties of other materials within the weapon. Over time, the components of our weapons corrode and deteriorate, and we lack experience predicting the effects of such aging on the safety and reliability of the weapons. The shelf life of U.S. nuclear weapons was expected to be some 20 years. In the past, the constant process of replacement and testing of new designs gave some assurance that weapons in the arsenal would be both new and reliable. But under the CTBT, we would be vulnerable to the effects of aging because we could not test "fixes" of problems with existing warheads.

Remanufacturing components of existing weapons that have deteriorated also poses significant problems. Manufacturers go out of business, materials and production processes change, certain chemicals previously used in production are now forbidden under new environmental regulations, and so on. It is a certainty that new processes and materials—untested—will be used. Even more important, ultimately the nuclear "pits" will need to be replaced—and we will not be able to test those replacements. The upshot is that new defects may be introduced into the stockpile through remanufacture, and without testing we can never be certain that these replacement components will work as their predecessors did.

Another implication of a CTBT of unlimited duration is that over time we would gradually lose our pool of knowledgeable people with experience in nuclear weapons design and testing. Consider what would occur if the United States halted nuclear testing for 30 years. We would then be dependent on the judgment of personnel with no personal experience either in designing or testing nuclear weapons. In place of a learning curve, we would experience an extended unlearning curve.

Furthermore, major gaps exist in our scientific understanding of nuclear explosives. As President Bush noted in a report to Congress in January 1993, "Of all U.S. nuclear weapons designs fielded since 1958, approximately one-third have required nuclear testing to resolve problems arising after deployment." We were discovering defects in our arsenal up until the moment when the current moratorium on U.S. testing was imposed in 1992. While we have uncovered similar defects since 1992, which in the past would have led to testing, in the absence of testing, we are not able to test whether the "fixes" indeed work.

Indeed, the history of maintaining complex military hardware without testing demonstrates the pitfalls of such an approach. Prior to World War II, the Navy's torpedoes had not been adequately tested because of insufficient funds. It took nearly two years of war before we fully solved the problems that caused our torpedoes to routinely pass harmlessly under the target or to fail to explode on contact. For example, at the Battle of Midway, the U.S. launched 47 torpedo air-

craft, without damaging a single Japanese ship. If not for our dive bombers, the U.S. would have lost the crucial naval battle of the Pacific war.

The Department of Energy has structured a program of experiments and computer simulations called the Stockpile Stewardship Program, that it hopes will allow our weapons to be maintained without testing. This program, which will not be mature for at least 10 years, will improve our scientific understanding of nuclear weapons and would likely mitigate the decline in our confidence in the safety and reliability of our arsenal. We will never know whether we should trust Stockpile Stewardship if we cannot conduct nuclear tests to calibrate the unproven new techniques. Mitigation is, of course, not the same as prevention. Over the decades, the erosion of confidence inevitably would be substantial.

The decline in confidence in our nuclear deterrent is particularly troublesome in light of the unique geopolitical role of the United States. The U.S. has a far-reaching foreign policy agenda and our forces are stationed around the globe. In addition, we have pledged to hold a nuclear umbrella over our NATO allies and Japan. Though we have abandoned chemical and biological weapons, we have threatened to retaliate with nuclear weapons to such an attack. In the Gulf War, such a threat was apparently sufficient to deter Iraq from using chemical weapons against American troops.

We also do not believe the CTBT will do much to prevent the spread of nuclear weapons. The motivation of rogue nations like North Korea and Iraq to acquire nuclear weapons will not be affected by whether the U.S. tests. Similarly, the possession of nuclear weapons by nations like India, Pakistan, and Israel depends on the security environment in their region, not by whether or not the U.S. tests. If confidence in the U.S. nuclear deterrent were to decline, countries that have relied on our protection could well feel compelled to seek nuclear capabilities of their own. Thus, ironically, the CTBT might cause additional nations to seek nuclear weapons.

Finally, it is impossible to verify a ban that extends to very low yields. The likelihood of cheating is high. "Trust but verify" should remain our guide. Tests with yields below 1 kiloton can both go undetected and be militarily useful to the testing state. Furthermore, a significantly larger explosion can go undetected—or be mistaken for a conventional explosion used for mining or an earthquake—if the test is "decoupled." Decoupling involves conducting the test in a large underground cavity and has been shown to dampen an explosion's seismic signature by a factor of up to 70. The U.S. demonstrated this capability in 1966 in two tests conducted in salt domes at Chilton, Mississippi.

We believe that these considerations render a permanent, zero-yield Comprehensive Test Ban Treaty incompatible with the Nation's international commitments and vital security interests and believe it does not deserve the Senate's advice and consent. Accordingly, we respectively urge you and your colleagues to preserve the right of this nation to conduct nuclear tests necessary to the future viability of our nuclear deterrent by rejecting approval of the present CTBT.

Respectfully,

JAMES R. SCHLESINGER.
FRANK C. CARLUCCI.
DONALD H. RUMSFELD.
RICHARD B. CHENEY.
CASPAR W. WEINBERGER.
MELVIN R. LAIRD.

Hon. TRENT LOTT,
Majority Leader, U.S. Senate,
Washington, DC.

DEAR TRENT: I am responding to your October 4 letter, in which you ask for my views on the Comprehensive Test Ban Treaty (CTBT).

As you know, I believe that matters of foreign policy and national security should be approached from a nonpartisan perspective. As such, I have supported a number of Clinton administration initiatives when I believed them to be in the national interest—for example, NATO action in Kosovo and ratification of the Chemical Weapons Convention. Unfortunately, in this substance, I cannot support President Clinton's effect to secure Senate approval of the CTBT.

In my view, ratifying the CTBT would endanger the national security of the United States, primarily by preventing nuclear testing essential to maintaining the safety and reliability of our nuclear deterrent. It is through explosive testing that the United States has maintained its confidence in the safety and reliability of the U.S. nuclear stockpile and, thus, the credibility of our nuclear arsenal. Without explosive testing, the credibility of our arsenal will, with time, erode. As credibility erodes, the deterrent effect of our nuclear force erodes, leaving not only America increasingly vulnerable, but also our allies who depend on the American nuclear umbrella.

While the Stockpile Stewardship program is worth pursuing, it should be viewed as a complement to our nuclear testing program—not a substitute for it. Explosive nuclear testing is a proven method of identifying stockpile problems. The Stockpile Stewardship Program is not yet in place and is therefore unproved. Deciding in 1999 to forego testing and instead to rely on a program that will be in place in 2010—it all goes well—is, in short, irresponsible.

Furthermore, agreeing to the CTBT would most certainly lead to a false sense of security. The Administration has argued that by embracing the CTBT, the United States will persuade other countries, including notable proliferators such as North Korea, to halt their quest for nuclear weapons and the means to deliver them. If a regime like Pyongyang has been susceptible to moral suasion or felt bound by international norms, it would never have violated the Nuclear Nonproliferation Treaty (NPT). The idea that rogue regimes are persuaded by American or broader international adherence to legal obligations is wishful thinking. These regimes are called rogue regimes for the very reason that they regularly violate international law and refuse to be held accountable to international norms. The only way to deal effectively with threats from rogue states is to deter them.

There should be no doubt that the best way to protect the United States from the consequences of proliferation is to develop and deploy effective missile defenses. There is no arms control treaty that can protect American territory from nuclear attack. And, with each day, America's enemies come closer to acquiring the capabilities to attack the United States with nuclear, chemical, and biological weapons. The best deterrents are a credible nuclear stockpile and a national missile defense system.

Neither President Reagan nor President Bush pursued a zero-yield test ban treaty of unlimited duration, and for good reason. The CTBT is an ill-conceived and misguided arms control agreement, the ultimate result of which will be the de-nuclearization by other means, of the United States. This treaty is hardly the "longest sought, hardest fought

prize in arms control history," as claimed by this Administration.

I support arms controls that increase the security of the United States, not ones that increase the vulnerability of our nation to terrorists and regimes bent on nuclear proliferation.

Sincerely,

BOB DOLE.

GARRISON, MN,
October 5, 1999.

Hon. JOHN W. WARNER,
Chairman, Armed Services Committee, U.S. Senate,
Washington, DC.

DEAR SENATOR WARNER: If the news reports are correct, the Armed Services Committee will be addressing the proposed Comprehensive Test Ban Treaty (CTBT) in the next few days. Although I will not be able to be in Washington during the hearings, I want you to have at least a synopsis of my views on the matter.

I believe that ratifying the treaty requiring a permanent, zero-yield ban on all underground nuclear tests is not in the security interest of the United States.

From 1945 through the end of the Cold War, the United States was clearly the pre-eminent nuclear power in the world. During much of that time, the nuclear arsenal of the Soviet Union surpassed ours in numbers, but friends and allies, as well as potential enemies and other nations not necessarily friendly to the United States, all understood that we were the nation with the very modern, safe, secure, reliable, nuclear deterrent force which provided the foundation for the security of our nation and for the security of our friends and allies, and much of the world. Periodic underground nuclear tests were an essential part of insuring that our nuclear deterrent force remained modern, safe, secure, reliable and usable. The general knowledge that the United States would do whatever was necessary to maintain that condition certainly reduced the proliferation of nuclear weapons during the period and added immeasurably to the security cooperation with our friends and allies.

Times have changed; the Soviet Union no longer exists; however, much of its nuclear arsenal remains in the hands of Russia. We have seen enormous political, economic, social and technological changes in the world since the end of the Cold War, and these changes have altered the security situation and future security requirements for the United States. One thing has not changed. Nuclear weapons continue to be with us. I do not believe that God will permit us to "uninvent" nuclear weapons. Some nation, or power, will be the preeminent nuclear power in the world, and I, for one, believe that at least under present and foreseeable conditions, the world will be safer if that power is the United States of America. We jeopardize maintaining that condition by eschewing the development of new nuclear weapons and by ruling out testing if and when it is needed.

Supporters of the CTBT argue that it reduces the chances for nuclear proliferation. I applaud efforts to reduce the proliferation of nuclear weapons, but I do not believe that the test ban will reduce the ability of rogue states to acquire nuclear weapons in sufficient quantities to upset regional security in various parts of the world. "Gun type" nuclear weapons can be built with assurance they'll work without testing. The Indian and Pakistani "tests" apparently show that there is adequate knowledge available to build implosion type weapons with reasonable assurance that they will work. The India/Pakistan explosions have been called "tests", but I believe it be more accurate to

call them "demonstrations", more for political purposes than for scientific testing.

Technological advances of recent years, particularly the great increases in computing power coupled with improvements in modeling and simulation have undoubtedly reduced greatly the need for active nuclear testing and probably the size of any needed tests. Some would argue that this should be support for the United States agreeing to ban testing. The new technological advantages are available to everyone, and they probably help the "proliferator" more than the United States.

We have embarked on a "stockpile stewardship program" designed to use science, other than nuclear testing, to ensure that the present weapons in our nuclear deterrent remain safe, secure and reliable. The estimates I've seen are that we will spend about \$5 billion each year on that program. Over twenty years, if the program is completely successful, we will have spent about \$100 billion, and we will have replaced nearly every single part in each of those complex weapons. At the end of that period, about the best that we will be able to say is that we have a stockpile of "restored" weapons of at least thirty-year-old design that are probably safe and secure and whose reliability is the best we can make without testing. We will not be able to say that the stockpile is modern, nor will we be assured that it is usable in the sense of fitting the security situation we will face twenty years hence. To me that seems to foretell a situation of increasing vulnerability for us and our friends and allies to threats from those who will not be deterred by the Nonproliferation Treaty or the CTBT, and there will surely be such states.

If the United States is to remain the pre-eminent nuclear power, and maintain a modern safe, secure, reliable, and usable nuclear deterrent force, I believe we need to continue to develop new nuclear weapons designed to incorporate the latest in technology and to meet the changing security situation in the world. Changes in the threat, changes in intelligence and targeting, and great improvements in delivery precision and accuracy make the weapons we designed thirty years ago less and less applicable to our current and projected security situation. The United States, the one nation most of the world looks to for securing peace in the world, should not deny itself the opportunity to test the bedrock building block of its security, its nuclear deterrent force, if conditions require testing.

To those who would see in my words advocacy for a nuclear buildup or advocacy for large numbers of high-yield nuclear tests, let me say that I believe we can have a modern, safe, secure, reliable and usable nuclear deterrent force at much lower numbers than we now maintain. I believe we can keep it modern and reliable with very few actual nuclear tests and that those tests can in all likelihood be relatively low-yield tests. I also believe that the more demonstrably modern and usable is our nuclear deterrent force, the less likely are we to need to use it, but we must have modern weapons, and we ought not deny ourselves the opportunity to test if we deem it necessary.

Very respectfully yours,

JOHN W. VESSEY,

General, USA (Ret.),

Former Chairman, Joint Chiefs of Staff.

WASHINGTON, DC,

October 5, 1999.

Hon. TRENT LOTT,
Majority Leader, U.S. Senate

Hon. THOMAS A. DASCHLE,
Minority Leader, U.S. Senate,
Washington, DC.

DEAR SENATORS LOTT AND DASCHLE: The Senate is beginning hearings on the Com-

prehensive Test Ban Treaty ("CTBT"), looking to an October 12 vote on whether or not to ratify. We believe, however, that it is not in the national interest to vote on the Treaty, at least during the life of the present Congress.

The simple fact is that the Treaty will not enter into force any time soon, whether or not the United States ratifies it during the 106th Congress. This means that few, if any, of the benefits envisaged by the Treaty's advocates could be realized by Senate ratification now. At the same time, there could be real costs and risks to a broad range of national security interests—including our non-proliferation objectives—if Senate acts prematurely.

Ratification of the CTBT by the U.S. now will not result in the Treaty coming into force this fall, as anticipated at its signing. Given its objectives, the Treaty wisely requires that each of 44 specific countries must sign and ratify the document before it enters into force. Only 23 of those countries have done so thus far. So the Treaty is not coming into force any time soon, whether or not the U.S. ratifies. The U.S. should take advantage of this situation to delay consideration of ratification, without prejudice to eventual action on the Treaty. This would provide the opportunity to learn more about such issues as movement on the ratification process, technical progress in the Department of Energy's Stockpile Stewardship Program, the political consequences of the India/Pakistan detonations, changing Russian doctrine toward greater reliance on nuclear weapons, and continued Chinese development of a nuclear arsenal.

Supporters of the CTBT claim that it will make a major contribution to limiting the spread of nuclear weapons. This cannot be true if key countries of proliferation concern do not agree to accede to the Treaty. To date, several of these countries, including India, Pakistan, North Korea, Iran, Iraq, and Syria, have not signed and ratified the Treaty. Many of these countries may never join the CTBT regime, and ratification by the United States, early or late, is unlikely to have any impact on their decisions in this regard. For example, no serious person should believe that rogue nations like Iran or Iraq will give up their efforts to acquire nuclear weapons if only the United States signs the CTBT.

Our efforts to combat proliferation of weapons of mass destruction not only deserve but are receiving the highest national security priority. It is clear to any fair-minded observer that the United States has substantially reduced its reliance on nuclear weapons. The U.S. also has made or committed to dramatic reductions in the level of deployed nuclear forces. Nevertheless, for the foreseeable future, the United States must continue to rely on nuclear weapons to contribute to the deterrence of certain kinds of attacks on the United States, its friends, and allies. In addition, several countries depend on the U.S. nuclear deterrent for their security. A lack of confidence in that deterrent might itself result in the spread of nuclear weapons.

As a consequence, the United States must continue to ensure that its nuclear weapons remain safe, secure, and reliable. But the fact is that the scientific case simply has not been made that, over the long term, the United States can ensure the nuclear stockpile without nuclear testing. The United States is seeking to ensure the integrity of its nuclear deterrent through an ambitious effort called the Stockpile Stewardship Program. This program attempts to maintain adequate knowledge of nuclear weapons physics indirectly by computer modeling,

simulation, and other experiments. We support this kind of scientific and analytical effort. But even with adequate funding—which is far from assured—the Stockpile Stewardship Program is not sufficiently mature to evaluate the extent to which it can be a suitable alternative to testing.

Given the absence of any pressing reason for early ratification, it is unwise to take actions now that constrain this or future Presidents' choices about how best to pursue our non-proliferation and other national security goals while maintaining the effectiveness and credibility of our nuclear deterrent. Accordingly, we urge you to reach an understanding with the President to suspend action on the CTBT, at least for the duration of the 106th Congress.

Sincerely,

BRENT SCOWCROFT.
HENRY A. KISSINGER.
JOHN DEUTCH.

Mr. KYL. Mr. President, I am going to take just a couple of minutes until Senator COVERDELL arrives, at which point I will suspend my remarks so that he can make some comments.

I want to talk a little bit about a common thread of the remarks of many of the people who are in opposition to the treaty; that is, that it is difficult for the United States to sustain our position as the world leader, that many in the international community would find it objectionable if the United States rejected the Comprehensive Test Ban Treaty, and that this would hurt our ability to lead with respect to proliferation of nuclear weapons in the world.

Let me quote from a newspaper story today in the Washington Post, the headline of which is, "U.S. Allies Urge Senate To Ratify Test Ban."

It is certainly true that they have done that. There are a variety of them that made comments hoping we would adopt the treaty, not defeat it. Let me quote a couple of things.

International anxiety also has been compounded by new worries over U.S. efforts to escape constraints imposed by the Anti-Ballistic Missile (ABM) Treaty, which limits the ability of the United States to build systems to defend against missile attack.

Russia and China say it would destabilize the strategic balance if the United States built a missile defense system, because Washington could be tempted to attack others if it felt invulnerable to retaliation.

Jayantha Dhanapala, the U.N. under secretary for disarmament affairs, said many countries agree to a permanent inspection regime four years ago only on the basis of a written guarantee by the nuclear powers to negotiate and ratify a worldwide test ban as one of several key steps toward nuclear disarmament.

I read two parts of the Washington Post story to suggest the world community, which does not want the United States to develop a ballistic missile defense, which doesn't want the United States to do anything that requires an amendment to the ABM Treaty, and some of which is very much in favor of total nuclear disarmament and has agreed to participate in this treaty only after leaders promised them this Comprehensive Test Ban Treaty would be one of several key

steps toward nuclear disarmament, all of those people in the world, I submit, are not people who we want to make U.S. national defense policy. Their goals are not the same as our goals.

We have an obligation as the leader of the free world to ensure our nuclear deterrent is safe and reliable; they don't. We may have to do things they could never dream of doing, including nuclear testing to ensure the safety and reliability of our nuclear stockpile. They don't have to worry about that, but we do. While they can lament the fact that the United States is not willing to sign onto the treaty, they don't have the same responsibility as we do, just as they can call for us not to amend the ABM Treaty or to build a national missile defense or even theater missile defenses without the obligations that The United States has.

The United States has to defend our troops around the world—which most of these countries don't have to do—to defend allies around the world and, of course, even to defend the United States. I, frankly, don't care much if people around the world who don't want the United States to defend itself against ballistic missile attack are going to criticize the Senate for rejecting a flawed unverifiable ineffective CTBT.

Finally, quoting from the last two paragraphs of this article:

I don't like to talk about any country exercising world leadership, but in this case we see that the United States must play a special role, Sha Zukang, China's top arms control official, said in an interview. Sha added that China is even more alarmed by U.S. efforts to develop a regional missile defense system than by the Senate's reluctance to approve a test ban treaty.

So I presume that next, in order to assuage the concerns of the Chinese, we will forego the development of a regional missile defense system because it would upset them if we proceeded with that. Why would it upset them? Because, of course, they wouldn't be able to threaten Taiwan. We have obligations that other countries don't have. If we are to be the great leader that people on this side of the aisle have urged the United States to be, then we have to exercise leadership. Sometimes that means doing things other people in the world are uncomfortable with.

Boris Kvok, Russia's deputy chief of disarmament issues, said the U.S. decision on the test ban treaty would not affect the deliberations of Russia's parliament on the pact or alter his country's test moratorium. "But if the U.S. moves ahead with ballistic missile defense, it would be a disaster . . . and we would have to start developing new weapons. . . ."

He is saying we don't really care about the CTBT in terms of what we are going to do, but if the United States moves ahead with ballistic missiles, that would be a disaster. I presume next we hear people come to the Senate floor and say international opinion says we should not develop a missile defense to protect the people of

the United States so we should not move forward with that.

My point is this: The United States cannot be held hostage to world opinion. We have obligations they don't have, and if they don't care about building a defense for their people, we need to because we can be a target of rogue nations whereas other countries may not be. They are not making the decisions and actions in the world that may cause these terrorists or rogue states to want to retaliate against them. However, the United States, by taking a world leadership role, has put itself in that position.

It is not a political issue; it is a physics issue. We have to have confidence in our nuclear stockpile.

The whole world thought Ronald Reagan was wrong, that he had left his senses when he said no to Mikhail Gorbachev at Reykjavik. They both talked about trying to rid the world of nuclear weapons. When Gorbachev said the price of that agreement was that the United States would have to forego the development of the Strategic Defense Initiative, Reagan said no. All of the world leaders gasped—except Margaret Thatcher. But the rest of the world leaders gasped and said: Mr. President, you should reconsider that.

All of the arms control advocates said it was a bad mistake for President Reagan to have said no. Of course, it later transpires that George Shultz mentioned the fact that Mikhail Gorbachev told him that was the turning point of the cold war. That is when Gorbachev concluded that he could not win the cold war and called it the turning point.

Ronald Reagan, in calling the Soviet Union the evil empire, upset a lot of the world leaders, but he stood his ground and history has proven him correct. I submit that history will prove us correct if we return this flawed treaty and say let's go back to the drawing board.

We can do better. We can persuade world leaders it is in the best interest of long-term peace that we do better than this flawed treaty.

Mr. BIDEN. Mr. President, I yield myself a few minutes to respond. I will take no more than 3 minutes.

I hope all Members have observed why my friend from Arizona is such a good lawyer. He did get your eye off the ball. He started off talking about England and France and our allies and Japan and then shifted to Sri Lanka, China, and Russia and talked about why we should not yield to international opinion. No one has suggested we yield to Sri Lanka, China, and Russia in international opinion.

The suggestion made is exactly stated: Allies urge ratifying a test ban treaty. Why? Because they believe it is in their critical interest. They don't lack confidence in our ability to maintain our stockpile. They signed and ratified the treaty.

This circular argumentation going on is we should not ratify because we

won't be able to protect our allies; but our allies say you should ratify because we want you to ratify, we feel fully protected.

Who do you believe? Our allies saying they want us? They signed; we want to sign.

Second, I point out this missile defense rests upon our allies in Great Britain and in France and in Norway allowing us to be able to put sensors in their country in order to be able to have a missile defense. That is the way it will work.

What will happen is, we turn down this treaty that they signed, that they think is in their interests, and now we go to them and say: By the way, we want you to help us with a missile defense for our country—not yours, a theater missile defense for our country. How about it, fellows, what do you think?

The third point I would make is: China can only be a threat to our theater missile defense. They have about 18 weapons right now. They can only be a threat to us if they are able to MIRV their missiles, if they are able to get sophisticated. Under this agreement, the intelligence community uniformly concludes that we could detect anything they are doing to get to the point where they were MIRVing those missiles, taking any of the stolen data they have gotten from us and using it. So what are we going to do? We reject this treaty, thereby giving a green light to them to do what they want to do without violation of any international law, thereby putting in jeopardy the very missile defense system my friend from Arizona thinks is so critical for our security.

I find it fascinating. Keep your eye on the ball.

I yield the floor. I see the leader. Welcome, leader.

The PRESIDING OFFICER. The majority leader.

Mr. LOTT. Mr. President, I will have a full statement on Tuesday. But I did want to get into the RECORD today some of the facts I think are very important for Senators to have access to, some views of a number of important experts.

I would entitle this statement with these words, a quote from Churchill: Facts are better than dreams. And the facts in this case argue against this treaty. The underlying premise of this treaty is flawed. The argument is, if we ratify this Comprehensive Test Ban Treaty, then the rest of the world will be nice and follow suit.

Do you really believe that is applicable to North Korea, Iraq, Iran, India, Pakistan, China, Russia? We are going to act on faith? There are those who will say we must lead, we must show the way, but that is a very dangerous thing to do when you are dealing with something of this importance.

Just in the last 2 days, in hearings before the Armed Services Committee and the Foreign Relations Committee, it has become apparent that this treaty

is flawed, should not be ratified now or in the foreseeable future. When you look at yesterday's testimony of the leaders of the country's three nuclear weapons laboratories, it makes it very clear that, as far as safety and reliability are concerned, without testing at this time we do not have the ability to make sure our weapons are safe and would be reliable if there were a need for them.

The headline, even in the New York Times, says, "Experts Say Test Ban May Impair Nuclear Arms Safety." That is a fact. That is a scary fact. Do the American people want us to have nuclear arms that are not tested, that are not safe? I do not think so. So I think we need to be very careful about going forward with a treaty that has the problems this treaty has now, in terms of what it would do and the fact that we do not have the ability to detect or verify what other countries may be doing. Just this past week, the CIA said they could not guarantee they could detect low-level testing in Russia. Then you add to that the testimony of the labs experts. We should defeat this treaty.

Let me correct the record, or remind our colleagues and the country a little bit about why we are where we are. Why is this up? Why did we get a unanimous consent agreement to bring up this treaty, debate it, and have a vote? The President has been demanding it for 2 years. In his State of the Union Addresses and on other occasions, he has been saying: Call it up, have a debate, and vote. Quote after quote I have here with me. The President said in remarks on the 50th anniversary of the Chairman of the Joint Chiefs of Staff, August 9, 1999:

I ask the Senate . . . to vote for ratification as soon as possible.

He has said:

. . . give its advice and consent to the Comprehensive Test Ban Treaty this year.

In his State of the Union Address in 1998, he said:

. . . approve the CTBT this year.

That was last year.

The Vice President, Mr. GORE has said:

The U.S. Congress should act now to ratify the Comprehensive Test Ban Treaty.

"Act now." That was July 23, 1998.

Forty-five Democrats sent a letter to Senator HELMS saying a number of things, but basically this is the upshot of it: Give the Senate the opportunity to consider ratification of the CTBT before the conference begins. That is a conference of ratifying states. That conference is underway now. They wanted to have it up. We got it up and started the debate today. They were demanding that it be called up and considered before then.

The minority leader has said:

[W]e are certainly willing to have a debate and have the vote.

Not call it up and pass it; he said have a debate, have a vote.

On September 30, 1999, he said:

I still think, one way or the other, we ought to get to this treaty, get it to the floor, debate it, and vote on it.

What I am saying is for 2 years there has been this agitation to get this treaty up and have a vote on it. So finally they got what they said they wanted, and then they didn't want what they said they wanted.

Then they said: Wait a minute, wait a minute, no, we didn't mean "now." Like this thing was just sprung on us. For 2 years we have been hearing about it. Senators are not uninformed on this treaty. There are hearings underway right now, excellent hearings by the chairman of the Armed Services Committee, Senator WARNER, and the Foreign Relations Committee, Senator HELMS. What happened was they found, when they actually got what they said they wanted—that is, the treaty was going to come up—that the treaty is flawed and it is going to be defeated. This treaty is not going to be ratified. It is not going to happen. They say: Wait, wait, wait; not now; it's too quick; we need more time; it is being given short shrift.

I have some interesting facts on that, too. You talk about the amount of time. When we get through with this treaty and have a vote, we will have probably somewhere around 16 to 18 hours discussing it, debating it, listening to each other, excellent statements on both sides, men and women very serious about this, treating it the way it should be treated. Today, the problem has not been to get speakers. It is that we have so many people who want to speak. We are going to have a good debate today. But let's compare it to other treaties in the past.

The CFE, the Conventional Forces in Europe Treaty, we debated for 6 hours and voted on. The START treaty, 9½ hours; START II, 6 hours; Chemical Weapons Convention—which I know a lot about and showed, during the debate on that issue and the vote, that I was willing to do what I thought was right for the country even under a lot of pressure opposing it. I still get criticized for that.

But when you come to treaties of this magnitude of international import, you have to look at the substance and you have to do what is right for your country, for the world situation, and for your children. Actually, it should be in the reverse order: For your children and your grandchildren. We spent 18 hours on it, and we voted on it.

The CFE flank agreement, 2 hours. As a matter of fact, we are going to have more time spent debating this issue, when it is over, than any recent treaty, with the exception of chemical weapons, which I presume would be about the same time.

So that is how we got to where we are. Because it was demanded. Senators were threatening to hold up Senate floor action if we did not have a vote. Senators had resolutions they wanted to offer with regard to this

treaty that were unrelated to other matters being considered on the floor, including the Labor-HHS-Education appropriations bill.

So I really thought, in view of the demands and the discussion that had gone on and the overall best interests of the Senate and the country, that this treaty should come up. So we got a unanimous consent agreement. It was not one that was sprung on anybody. I suggested it on Wednesday. We did not get it finally agreed to and locked in until Friday. So the discussions went on for 2 days. Nobody was surprised. The White House knew full well what we were about to agree to. Now they say set it aside.

I am very worried; should this issue not be voted on now, it might be set aside to be brought back next year and that it become much more of a political issue. And it should not be. We have for a long time worked together in this Senate on a bipartisan basis, and bicameral, and with administrations, on trying to do the right thing on arms control. We should continue to do that. This treaty should not come up next year during a Presidential campaign and be used for political purposes on either side. So I called this up, as was demanded. We got a reasonable time agreement, more than was usually granted for treaties.

There have been hearings underway. The Senators are not uninformed. Senators know what is in this treaty as they get to know more and listen to experts, such as Senator LUGAR yesterday who had a six-page statement about how this treaty was wrong.

To my colleagues I say, we have done what was requested by the President and by Senators. Let's have this debate and, as for myself, I am ready to vote.

Mr. President, proponents and opponents of the Comprehensive Test Ban Treaty find themselves in agreement on the starting point for this debate: That nuclear deterrence is fundamental to the national security of the United States. In his May of 1997 report entitled "A National Security Strategy for a New Century," President Clinton states, and I quote, "The United States must continue to maintain a robust triad of strategic forces sufficient to deter any hostile foreign leadership with access to any nuclear forces and to convince it that seeking a nuclear advantage would be futile." While the United States must be prepared for the prospect that nuclear deterrence may not always work, in no way does the possibility of failure render deterrence valueless.

Nuclear deterrence was crucial to U.S. security in the past, and will continue to be in the future.

It was, for example, nuclear deterrence which helped guarantee the security of Western Europe from the late 1940s until the Soviet Union collapsed and the cold war ended peacefully. President Eisenhower called on the U.S. nuclear deterrent to stop Chinese attacks against the islands of Quemoy

and Matsu in 1958. In 1962 it was the U.S. nuclear deterrent that enabled President Kennedy to demand that the Soviet Union peacefully withdraw its nuclear missiles from Cuba. Again, President Nixon called on the U.S. nuclear deterrent to stop Soviet armed intervention into the Middle East during the 1973 Yom Kippur War. And, most recently, the U.S. nuclear deterrent was essential in persuading Saddam Hussein not to use chemical or biological weapons during the 1991 gulf war, undoubtedly saving thousands of lives. Time and again nuclear deterrence has effectively protected U.S. security without a shot being fired, and, along with the President and many others, I expect our deterrent to continue to be vital for the indefinite future.

Credibility is the key to deterrence. Our nuclear deterrent must be credible not only to would-be aggressors, but also to America's leaders. To contemplate the use of nuclear weapons, our leaders must be confident in the safety and reliability of our nuclear arsenal. Our adversaries must believe that U.S. leaders possess the will to use the nuclear force if need be, and must also believe that our nuclear weapons can be used—that they are safe and reliable enough for U.S. leaders to consider seriously the possibility of their use. Without these conditions American threats of retaliation become less than credible, and the contribution of nuclear deterrence to the national security strategy of the United States would be unacceptably eroded.

It is the paradox of the nuclear age that ensuring nuclear weapons are never used depends on ensuring they can be used.

It is through testing of the U.S. nuclear stockpile that the United States has maintained its confidence in the safety and reliability of our nuclear weapons. In 1987 the Lawrence Livermore Lab produced a reported entitled Report to Congress on Stockpile Reliability, Weapon Remanufacture, and the Role of Nuclear Testing. This report, though 12 years old, remains the single best explanation of the need for nuclear testing.

According to the Livermore report, and I quote, "... there is no such thing as a 'thoroughly tested' nuclear weapon." The report gives several reasons for testing, to include, and I quote, "... testing is done to maintain the proper functioning of the current stockpile of weapons," and, "testing is done to modernize the existing stockpile for enhanced safety, security, or effectiveness. . . ."

Moreover, on many occasions the Labs have discovered problems with weapons only because of testing. According to the Livermore report,

Nuclear weapons are fabricated from chemically and radiologically active materials. Much as a piece of plastic becomes brittle when it is left in the sunlight, nuclear weapons age and their characteristics change in subtle,

often unpredictable ways. Testing is sometimes required to find problems and to assess the adequacy of the fixes that are implemented. Experience has shown that testing is essential. One-third of all the weapon designs introduced into the stockpile since 1958 have required and received post-deployment nuclear tests to resolve problems related to deterioration or aging or to correct a design that is found not to work properly under various conditions. In three-fourths of these cases, the problems were discovered only because of the ongoing nuclear testing. Because we frequently have difficulty understanding fully the effects of changes, particularly seemingly small changes on the nuclear performance, nuclear testing has been required to maintain the proper functioning of our nation's deterrent.

Accordingly to Dr. John Nuckolls, Director Emeritus of the Lawrence Livermore Lab, in a September 2, 1999, letter to Senator JON KYL, "Nuclear testing has been essential to the discovery and resolution of many problems in the stockpile." Testing has been important in ensuring that our weapons work and are safe. It has been important in finding problems in our weapons. It has been important in certifying the solutions to the problems that have been found.

It is because of this testing that the United States has been able to maintain its confidence in the safety and reliability of the nuclear stockpile, which is a fundamental requirement of nuclear deterrence.

In promoting the Comprehensive Test Ban Treaty, the Clinton administration asserts it can assure the requisite level of confidence in the safety and reliability of America's nuclear stockpile—that is, of the weapons comprising our deterrent, upon which nuclear deterrence is based—without testing.

To do this the administration has embarked upon the "Stockpile Stewardship Program." According to the Fiscal Year 2000 Stockpile Stewardship Plan Executive Overview, released by the Department of Energy in March of 1999, and I quote, "The overall goal of the Stockpile Stewardship program is to have in place by 2010 * * * the capabilities that are necessary to provide continuing high confidence in the annual certification of the stockpile without the necessity for nuclear testing."

The Stockpile Stewardship Program is an excellent program, and my comments should not be misunderstood as criticism of the program, per se. In fact, the United States has always had some form of stockpile stewardship even while testing. The fundamental question with respect to this program, however, is whether and when it will provide the requisite confidence in the safety and reliability of the stockpile even if it meets all of its design goals. As stated by the Department of Energy in the FY 2000 Stockpile Stewardship

Plan Executive Overview, "At the heart of the Stockpile Stewardship Program is the issue of confidence."

To their credit, senior officials at the Department of Energy and the nuclear labs are generally careful in how they couch their remarks about the Stockpile Stewardship Program. The usual formulation is to state the belief in Stockpile Stewardship as the "best approach" in the absence of testing. That is a responsible reply, as it would be unreasonable to argue that the Department of Energy or our labs should be able to guarantee the success of the Stockpile Stewardship Program. The scientists and engineers at the heart of stockpile stewardship are, in many cases, engaged in activities that are at the cutting edge of the science and technology of nuclear weapons. They can't guarantee success.

According to the administration's estimates, it won't even be completely in place until the year 2010. But proponents of the Comprehensive Test Ban Treaty are willing to put the Stockpile Stewardship cart before the nuclear horse, willing to gamble that the United States can give up nuclear testing now in the hope that Stockpile Stewardship will work in the future. Proponents try to reassure us by saying that if the Stockpile Stewardship Program ends up being insufficient, the United States can exercise the "supreme national interest" clause in the treaty to resume testing. Given the unwillingness of administrations to make use of this standard clause in other arms control agreements even when compelling facts exist, there is little reason to believe it would be used with the Comprehensive Test Ban Treaty.

It may surprise some that we cannot be certain of the future success of the Stockpile Stewardship Program. But we should all understand that this lack of certainty comes from a lack of detailed knowledge of many of the key processes in our nuclear weapons, even after all these years of studying, designing, building, and testing nuclear weapons. Accordingly to the FY 2000 Stockpile Stewardship Plan Executive Overview, "The science and engineering of nuclear weapons are extremely complex, requiring the integration of over 6,000 components. There are many parameters and unknowns that greatly influence the performance of nuclear warheads." This report goes on to state, "There are many areas of warhead operation that cannot be adequately addressed with existing tools and the current knowledge base of the weapons scientists and engineers." Thus the need for the several components of the Stockpile Stewardship Program, each of which is, in its own right, a major program.

The importance of major components of Stockpile Stewardship being on schedule and on budget is made clear in the administration's FY 2000 Stockpile Stewardship Plan Executive Overview. This report states that the success of the Stockpile Stewardship plan is, "de-

pendent on a highly integrated and interdependent program of experimentation, simulation, and modeling. . . ." The report also states, "The success of this strategy depends on the effective integration of every major activity described in this Executive Overview . . ." and, "Full implementation of the Stockpile Stewardship Program is required to sustain a safe and reliable nuclear deterrent. . . ." Simply put, this means that each of the major parts of the Stockpile Stewardship Program must work if, as stated by the administration, our country can do without nuclear testing while ensuring the safety and reliability of our nuclear deterrent.

I will not go through each part of the Stockpile Stewardship Program, but I will take a moment to discuss the National Ignition Facility, which has been described by senior Department of Energy officials as one of the key elements of Stockpile Stewardship. In fact, a senior Energy Department official has briefed Senate staff that the Stockpile Stewardship Program cannot succeed if the National Ignition Facility does not succeed.

The purpose of the National Ignition Facility, being built by the Lawrence Livermore National Lab, is to achieve a better understanding of the part of the nuclear weapon known as the "primary." The primary is the first and most critical stage in a nuclear explosion, and also happens to be the least understood part of our nuclear weapons. While other problems can affect the reliability of our nuclear weapons, we know that a nonfunctioning or deficient primary means that the weapon will either not work or not work as planned. In either case, this would be a major problem for our nuclear deterrent, and, hence, for our strategy of nuclear deterrence.

Senate staff were briefed at length on the National Ignition Facility during a visit to the Livermore Lab last January. During this briefing they were told explicitly that the National Ignition Facility was on schedule for completion in October of 2003 and on budget. This program at that time was estimated to cost \$1.2 billion.

We have recently learned that the National Ignition Facility is not on schedule and budget, contrary to the representations that were made last January to staff. The same representation was made in testimony in March of 1999 to the Senate Armed Services Committee by Dr. C. Bruce Tarter, Director of the Lawrence Livermore Lab, when he stated, "I am pleased to report that NIF [National Ignition Facility] construction is on budget and on schedule." In fact, however, the Washington Post reported on September 6, 1999, that, "Energy Department officials said mismanagement may cause the project's cost to soar as much as \$350 million above the originally projected \$2 billion and delay completion by as much as two years," Dr. Tarter's statement demonstrates that each part of

the Stockpile Stewardship Program is a complex undertaking, the success of which cannot be assured, whether for reasons of technological or managerial deficiencies.

It shouldn't be a surprise that the Stockpile Stewardship Program is having difficulties. After all, nearly every aspect of this program is attempting to push the borders of our scientific and engineering knowledge of nuclear weapons. Additionally, the Department of Energy's record of successful completion of major programs leaves much to be desired. According to the General Accounting Office, "From 1980 through 1996, DOE terminated 9 of 18 major Defense Program projects after spending \$1.9 billion and completed only 2 projects—one behind schedule and over budget with the other behind schedule but under budget. 'Schedule slippages' and cost overruns had occurred on many of the remaining 7 projects ongoing in 1996." In the FY 2000 Stockpile Stewardship Plan Executive Overview Dr. Vic Reis states, "Maintaining the U.S. nuclear weapons stockpile without nuclear testing will continue to challenge DOE's best capabilities."

Mr. President, there are many other reasons to be concerned about whether the Stockpile Stewardship Program is a sufficient alternative to testing. I will not address these questions in detail, but hope other Senators will.

First, even if Stockpile Stewardship works as planned, and on time, and is affordable, is it good enough?

Second, will Stockpile Stewardship accurately tell us about the effects of aging on nuclear weapons, which is one of the key challenges in stockpile whose weapons are being extended far beyond their design life? Will it tell us for example, what happens to plutonium as it ages? The issue of aging and its effects on the nuclear stockpile is particularly important, and is recognized as such in the FY 2000 Stockpile Stewardship Plan Executive Overview, which makes the following important statements about aging,

1. "The DOE has never before had large numbers of 30 to 50 year-old warheads in the stockpile. Until last year, the average age of a stockpile warhead had always been less than 13 years. As a result, new types of aging-related changes and problems in these older warheads are expected to be encountered."

2. "Some changes may have little or no effect, whereas others could make a major difference."

3. "Nuclear warheads are not static objects. Materials change over time (e.g., radioactive decay, embrittlement, corrosion). Some of these changes do not adversely affect warhead safety or reliability, but others may. In addition, not all changes have reached current detection thresholds, but nonetheless may potentially impact safety or reliability."

4. "*** warheads will remain in the stockpile well beyond their anticipated design life and beyond DOE's base of experience."

Third, will Stockpile Stewardship be good enough to certify the many new manufacturing processes, to include those for new plutonium pit production? And how will we know that the Stockpile Stewardship certifications of new manufacturing processes are accurate?

Fourth, will Stockpile Stewardship enable the United States to make its weapons as safe as the technology allows, which used to be the standard against which nuclear weapons safety was measured? We have already received testimony, for example, that insensitive high explosives—an important safety measure—cannot be put in all of our deployed nuclear weapons without testing.

Fifth, how will we know the answers to any of these questions without calibrating the finished Stockpile Stewardship product, if or whenever we get to that point, against actual tests of aged weapons currently in the stockpile? Though the United States performed 1,030 nuclear tests, much of the data is of such low quality or on weapons no longer in the stockpile that it can't be used in Stockpile Stewardship.

The Advanced Strategic Computing Initiative, one of the major parts of the Stockpile Stewardship Program, has made impressive advances in supercomputing capability. But it still must improve the capabilities of its supercomputers by many orders of magnitude above what it has already attained. If this can be affordably accomplished—something that has not yet been determined—the United States will still be in the position of then having to rely upon computer simulations to integrate all the data being produced out of the other pieces of Stockpile Stewardship. As we all know, computer simulations can always be made to work; the question is whether they faithfully model reality. And without calibrating these models against actual tests of weapons currently in the stockpile, the United States will be forced into the position of hoping its models and simulations are accurate.

Sixth, will Stockpile Stewardship incorporate and replace the experience base in Department of Energy and Lab personnel as most of the scientists and engineers with design, manufacturing, and test experience retire in the next 10 years? According to the FY 2000 Stockpile Stewardship Plan Executive Overview, "Many of the scientists and engineers with actual weapons design, production, and test experience have already retired, and most of those remaining will likely retire within the next decade. A new generation of weapons scientists and engineers must be trained and their competence validated before the current generation leaves the workforce."

Seventh, is Stockpile Stewardship's funding sufficient and sustainable? This question is asked because the lab directors originally told the administration they needed \$4.8 billion per year, but were told to design a \$4.5 bil-

lion per year program. After doing so they were then told the \$4.5 billion per year would be in current dollars, and would therefore not be adjusted over time for inflation. And most recently, the labs were told that the cost of producing tritium would have to be accommodated within the \$4.5 billion per year, though it was not included by the labs in their \$4.5 billion per year budget. In testimony before the Senate Assistant Secretary of Energy Vic Reis stated, "A production source of tritium would be in addition to" the \$4.5 billion per year for Stockpile Stewardship. Dr. Reis, however, is directly contradicted by the FY 2000 Stockpile Stewardship Plan Executive Overview, which states, "FY '00 funding for the tritium source is included within this level" of \$4.5 billion. Thus, the labs are getting less than they said they needed for the Stockpile Stewardship Program; they're sustaining funding reductions because of inflation; and, their program is being further reduced by having additional requirements levied upon Stockpile Stewardship without the provision of additional resources.

Finally, and most important, since Stockpile Stewardship is supposed to tell us about problems, many of which we've never seen before—such as those caused by aging—how will we know if Stockpile Stewardship "works"? How will we know we're finding problems that we've never seen before?

According to the President's statement of August 11, 1995, "I am assured by the Secretary of Energy and directors of our nuclear labs that we can meet the challenge of maintaining our nuclear deterrent under a CTB through a science-based stockpile stewardship program without nuclear testing."

The directors of the labs have not "assured" the President that the Stockpile Stewardship Program will maintain the U.S. nuclear deterrent, in the President's words, "without nuclear testing." What the lab directors actually have said in quite different: that Stockpile Stewardship represents the best chance to maintain the deterrent without testing. But there was absolutely no assurance given the President by the lab directors concerning Stockpile Stewardship. They have never said, individually or collectively, "we can maintain the safety and reliability of our nuclear weapons without testing." In a letter to Senator JON KYL of September 24, 1997, the director of the Los Alamos Lab, Dr. Sigfried Hecker, stated, "We agreed with the Department of Energy that without nuclear testing, the SSMP [Stockpile Stewardship and Management Program] provides the most logical approach for certifying the stockpile today and decades from now. We said that we could not guarantee that the SSMP would work, although we had reasonable confidence that it would * * *." That certainly doesn't sound like an "assurance" to me.

Recognizing that the eventual success of the Stockpile Stewardship Pro-

gram is not a self-evident fact, during a visit to the Los Alamos National Lab on February 3rd, 1998, President Clinton said, "I don't think we can get the Treaty ratified unless we can convince the Senate that the Stockpile Stewardship Program works * * *." As good as this program is, we do not know if Stockpile Stewardship will be good enough. We do not know when, if ever, the Stockpile Stewardship Program will be good enough, particularly as its promised completion is still over a decade away. And until we know, it would be irresponsible to foreswear nuclear testing. Stockpile Stewardship is simply not a proven alternative to nuclear testing. Nuclear deterrence is too important to the security of the United States for our nuclear deterrent to be propped up by hopes instead of set in a foundation of facts.

The CTBT purports to ban an activity it does not define.

My opposition to the Comprehensive Test Ban Treaty is not derived solely from the questions emanating from the unfinished Stockpile Stewardship Program, though these uncertainties constitute more than sufficient grounds to object to the treaty. The CTBT is itself seriously flawed in many ways, four of which I will discuss.

First, the Comprehensive Test Ban Treaty purports to ban an activity it does not define. Nowhere in the treaty can the definition of "test" be found. That is not to say that negotiators didn't spend a significant amount of time trying to define this most fundamental of terms. They did, but left the word undefined purposely because they simply found it too difficult to reach consensus on its meaning.

So, the Senate is being asked to render advice and consent to ratification of a treaty that not only bans an activity, but does so comprehensively. We just don't quite know what activity is being banned.

The Comprehensive Test Ban Treaty does state in Article I, "Each State Party undertakes not to carry out any nuclear weapon test explosion or any other nuclear explosion * * *." The Clinton administration has interpreted this to mean the CTBT is a "zero-yield" treaty, so one could expect that the treaty bans nuclear explosions from which a nuclear yield is derived. Unfortunately, the truth is not that simple, which is why the word "test" in the Comprehensive Test Ban Treaty is undefined.

In fact, for the first two-and-a-half years of the Clinton administration, negotiators pursued a comprehensive test ban treaty that would allow some level of yield from tests; that is, the Clinton administration's position was to negotiate a comprehensive test ban that would allow low-yield testing. Until August 11, 1995, when President Clinton decided to pursue a zero-yield CTBT, the Defense Department position was that it could agree to a comprehensive test ban treaty only if it permitted tests with nuclear yields of

up to 500 tons. Other parts of the administration resisted a zero-yield treaty because they knew such a treaty couldn't be verified. But the nuclear weapon states couldn't agree on how much yield should be allowed, and the non-nuclear weapon states viewed this approach as an attempt by members of the nuclear club to enjoy the rhetorical benefits of being part of a nuclear test ban treaty while continuing to have the ability to improve their nuclear arsenals. So ultimately, in large part because some believed the indefinite extension of the Nuclear Nonproliferation Treaty hung in the balance, the United States endorsed a zero-yield Comprehensive Test Ban Treaty while leaving the meaning of "test" undefined and "zero-yield" ambiguous. In fact, the phrase "zero-yield" is not even in the treaty.

Hydro nuclear testing is a perfect example of this problem. Hydronuclear testing is very low-yield testing, and is particularly useful in assessing nuclear weapon safety issues. Until the Clinton administration adopted its "zero-yield" position, it held that hydronuclear tests would be permissible under a comprehensive test ban treaty. After the administration adopted zero-yield as its position, though, American representatives declared hydronuclear testing to be contrary to this standard. Other countries, such as Russia, however, have declared hydronuclear testing to be consistent with its understanding of the treaty. Victor Mikhailov, formerly the Russian Minister of Atomic Energy and currently the First Deputy Minister at that ministry, stated on April 23, 1999, that the Russian nuclear program has to focus on, in his words, "three basic directions" in a CTBT environment: "new computer equipment, non-test-site 'simulation' experiments, and so-called test-site hydronuclear experiments, where there is practically no release of nuclear energy." Neither Russia nor, for that matter, China, has agreed even to the U.S. definition of what constitutes a hydronuclear test.

After Russia signed the Comprehensive Test Ban Treaty in 1996, Arzamas-16, one of Russia's two nuclear weapons labs, published a book in 1997 entitled *Nuclear Tests of the USSR*. According to this book, "Explosive experiments with nuclear charges in which the amount of nuclear energy released is comparable to energy of the HE [high explosive] charge, belong to the category of hydronuclear tests, and they also are not nuclear tests * * *." In plain English this means that one of Russia's two nuclear design labs does not consider low-yield testing to be a violation of the Comprehensive Test Ban Treaty.

The Russian position is not without merit, as the treaty's failure to define the meaning of the word "test" or even to include the phrase "zero-yield" gives rise to these kinds of fundamental ambiguities. Indeed, in testimony to the Senate, Mr. Spurgeon

Keeny, President of the Arms Control Association, stated that during President Eisenhower's nuclear testing moratorium of 1958-1961, the President authorized a number of hydronuclear tests, "... related to some very specific safety problems that existed at the time." So during President Eisenhower's zero-yield nuclear testing moratorium he authorized the conduct of tests which this administration says would violate today's zero-yield Comprehensive Test Ban Treaty. It's not hard to see why other nations could think hydronuclear tests are permissible.

This ambiguity will lead to greater tensions as some accuse others of violating the treaty. It will enable some countries to improve their weapons and cloak the activities of other nations as they pursue acquisition of nuclear weapons, while the United States abides strictly by the treaty. While arms control proponents suggest that arms control treaties enhance relations between nations, the failure to define the Comprehensive Test Ban Treaty's most fundamental term can hardly be expected to build confidence between nations; instead, it's likely to create discord.

There is no evidence that the CTBT will reduce proliferation.

The second key problem with the treaty is that, contrary to assertions by treaty proponents, there is no evidence that the Comprehensive Test Ban Treaty will reduce proliferation.

Nations acquire nuclear weapons to enhance their national security. Will America's failure to test change that? The evidence indicates not. Indeed, though the United States hasn't tested since 1992—and didn't resume testing even after France and China conducted their tests in the mid-1990s—India and Pakistan chose to conduct nuclear tests in the spring of 1998. Each country did this for the simple reason that they found such conduct to be consistent with their national security interests.

The idea that the Comprehensive Test Ban Treaty will be an effective nonproliferation barrier should be examined in the context of the Nuclear Nonproliferation Treaty, or NPT. Except for the United States, Britain, France, Russia and China—the so-called "P-5"—the NPT establishes a norm against the development or acquisition of nuclear weapons. Yet, despite the establishment of this norm more than 30 years ago, nations other than the P-5 have continued to seek and acquire nuclear weapons. This pursuit and acquisition of nuclear weapons has occurred by both members and non-members of the NPT. Thus, while some of these nations, by virtue of their NPT membership, have explicitly violated the terms of that treaty—North Korea and Iraq immediately come to mind—the rest, though not NPT members, have flouted the NPT-established international norm.

So, the CTBT-established "norm" against testing is essentially super-

fluous. To violate this norm, nations, except for the P-5, must first violate the NPT-established norm against acquiring nuclear weapons. And if they are willing to violate the first norm, why not the second, and lesser, CTBT-established norm? Nations willing to violate the NPT norm to acquire the weapon in the first place can hardly be expected not to violate the CTBT norm of testing their ill-gotten weapon. Mr. Spurgeon Keeny, President of the Arms Control Association, even testified to the Senate that the NPT, "is the principal constraint on testing by non-nuclear weapon states." Which would seem to make the CTBT extraneous.

Nonetheless, CTBT proponents contend the treaty will be an effective tool against "horizontal proliferation"—that is, against the acquisition of nuclear weapons by nations that don't already have them—and also against "vertical proliferation," or the improvement of nuclear arsenals by those nations already possessing these weapons.

According to Dr. Kathleen Bailey, the former Assistant Director of the Arms Control and Disarmament Agency and now retired from the Lawrence Livermore Laboratory, in testimony before the Senate, "It is quite feasible for a nation to develop a device that will work as long as it does not matter if the yield is exactly known and there are no exacting specifications which must be met." Nations that do not now have nuclear weapons can build relatively unsophisticated nuclear weapons. The knowledge necessary to build these weapons is readily available, in textbooks, classrooms, libraries, and on the Internet. Treaty proponents do not dispute this; in testimony before the Senate, Mr. Keeny of the Arms Control Association, said, "... a rogue state could develop a first generation nuclear weapon without testing."

For proliferating nations seeking a nuclear weapon capability, first generation nuclear weapons need not be tested for the user to have adequate confidence in their utility. The United States would not have sufficient confidence in an untested or marginally tested weapon because of its requirements for weapon safety and reliability, but other nations will not necessarily have the same stringent requirements. Even if a country has low confidence that its relatively unsophisticated nuclear weapon will work if used militarily, in a crisis the United States cannot take the chance that another country's weapon, however unsophisticated, won't work. In this respect, mere possession of a nuclear weapon could be enough to dissuade the United States from acting. As a minimum, this possession will be enough to constrain America's options in time of crisis.

With respect to "vertical" proliferation, were the CTBT to receive consent to ratification by the Senate I am confident it would constrain the ability of

the United States to modernize its nuclear arsenal. But other nations that already possess nuclear weapons will improve their arsenals—by exploiting the ambiguity inherent in the treaty's failure to define "test," or embarking upon testing which we can't detect though it provides militarily useful data, or by espionage, as we have already seen in the case of China. China's acquisition of information on our most modern nuclear warhead, the W-88, demonstrates that some nuclear powers can improve their arsenals without extensive testing.

The Comprehensive Test Ban Treaty could also have the perverse effect of engendering proliferation. There are several advanced nations, most of which are U.S. allies, that decided to forego their own nuclear arsenals for the explicit reason that their safety would be guaranteed under the American nuclear umbrella. If these allies lose their confidence in the safety and reliability of the U.S. nuclear deterrent, then they could also lose faith in the idea of finding their own protections within America's extended deterrent. These nations could then decide it to be in their own national security interests to acquire nuclear weapons; at a minimum, U.S. participation in the CTBT would require them to examine the question of whether they need their own nuclear deterrent.

The Comprehensive Test Ban Treaty's supposed nonproliferation benefits are based on hope, not fact. The CTBT adds nothing to the NPT. The evidence simply does not support the assertion that the CTBT would be an effective nonproliferation tool.

The CTBT verification scheme will have little effect.

The third significant deficiency of the Comprehensive Test Ban Treaty is its verification provisions. As the treaty is supposed to be a "zero yield" test ban, this is particularly troubling. While it is reasonable to hope that a nation's assumption of treaty obligations is sufficient to bind it by the treaty's terms and conditions, it is an unfortunate fact that some nations violate arms control treaties when convenient. The Senate recognized this problem, for example, when it provided advice and consent to ratification of the START II agreement, declaring its concern about, "... the clear past pattern of Soviet noncompliance with arms control agreements and continued cases of noncompliance by the Russian Federation. . . ." This is why effective verification of arms control treaties is so important, and I will explain three of the ways the CTBT's verification regime is deficient.

First, treaty supporters hope that the International Monitoring System set up under the CTBT will enable detection with high confidence of very low yield nuclear tests. We know, however, that it is possible to conduct a nuclear test with the intention of evading systems designed to detect the explosion's telltale seismic signature.

This can be done through a technique known as "decoupling," whereby a nuclear test is conducted in a large underground cavity, thus muffling the test's seismic evidence. In a speech to the Council on Foreign Relations last year, Dr. Larry Turnbull, Chief Scientist of the Intelligence Community's Arms Control Intelligence Staff, said,

The decoupling scenario is credible for many countries for at least two reasons: First, the worldwide mining and petroleum literature indicates that construction of large cavities in both hard rock and salt is feasible, with costs that would be relatively small compared to those required for the production of materials for a nuclear device; second, literature and symposia indicate that containment of particulate and gaseous debris is feasible in both salt and hard rock.

So not only is this "decoupling" judged to be "credible" by the Intelligence Community, but, according to Dr. Turnbull, the technique can reduce a nuclear test's seismic signature by up to a factor of 70. This means a 70-kiloton test can be made to look like a 1-kiloton test, which the CTBT monitoring system will not be able to detect. And a 70-kiloton test, even much less than a 70-kiloton test, can be extraordinarily useful both to nations with nuclear weapons and to nations seeking nuclear weapons. Bear in mind that the first atomic bomb used in combat had a yield of only 15 kilotons.

The final verification problems I will discuss is one that is present in, though not particular to, this treaty, and has to do with the ability of proliferators to utilize information gained from the verification system. In short, the verifications regime could serve as a training ground for those who wish to use the treaty to mask their continued pursuit of new or improved nuclear weapons. We have seen this problem in the past, and the aftermath of the Gulf War provides an excellent example.

Dr. David Kay, the first head of the UNSCOM inspection team in Iraq, has recounted on various occasions his experiences in searching for the Iraqi missile and weapons of mass destruction programs. One such experience involves UNSCOM's search for Iraq's nuclear weapons program. The UNSCOM inspectors searched long and hard, knowing the evidence was well hidden, and over many months, despite the best efforts of Iraq to frustrate UNSCOM's efforts, gradually uncovered much information about the broad scope of the Iraqi nuclear program.

The UNSCOM inspectors were particularly interested in learning how Iraq had managed to fool the International Atomic Energy Agency for so long. According to Dr. Kay, the response they received from the director of Iraq's Atomic Energy Commission "Nuclear Safeguards Department"—someone who had repeatedly lied to UNSCOM inspectors until he was confronted with incontrovertible evidence—was that he had learned how to beat the IAEA system of inspections from his experience as an IAEA inspector. After all, Iraq is a member of the

NPT, and Iraqis therefore have every right to work at the IAEA.

Mr. President, we must expect that the same will happen under the CTBT. The treaty's own implementation mechanisms could teach some countries how to appear to be adhering to this treaty while actually using it to shield the advancement of their clandestine nuclear programs.

It is important to understand that our ability to verify a treaty is confined to the limits and fallibility of intelligence collection and analysis. In a 1998 speech to the National Defense University Foundation, Dr. Kay, stated, "We ought to remember in the case of Iraq, we [UNSCOM] found in the nuclear area a program that had sucked up \$10 billion in the 1980s; 15,000 people working on it; 25 sites of production of various components, 12 really major ones; elaborate deception and denial operations. . . . Can you imagine, if you had the DCI in here and asked him, 'Is there a country that can engage over ten years in a program to build nuclear weapons, spend \$10 billion, have 15,000 people working in it, five major avenues of enriching uranium, and get within 18 months of building the program and you will not have detected it?'" Sometimes, unfortunately, our Intelligence Community will miss even very large clandestine programs.

The CTBT verification problem is compounded by the fact that it is supposed to be a "zero-yield" treaty. Commenting on this in testimony this year before the Senate Foreign Relations Committee, James Woolsey, President Clinton's first Director of Central Intelligence, stated, "I do not believe that the zero level is verifiable. Not only because it is so low, but partially because of the capability a country has that is willing to cheat on such a treaty, of decoupling its nuclear tests by setting them off in caverns or caves and the like. . . . And to my mind, that makes it a worse than a weak reed on which to rely." Mr. Woolsey is correct; the false assurance of the CTBT's verification system is in many ways worse than no assurance at all. The treaty's verification flaws alone are sufficient reason to vote against the Comprehensive Test Ban Treaty.

The CTBT prevents the United States from making our weapons safer and from adapting our nuclear stockpile to new threats.

The fourth major deficiency of the Comprehensive Test Ban Treaty is that it will prevent the United States from both improving its current arsenal and building new types of weapons, should the need arise. Though treaty proponents view this as a positive development, I will briefly explain why it is in fact a problem.

Dr. Robert Barker recently retired from the Lawrence Livermore National Lab after spending his entire professional life as part of the U.S. nuclear complex, as a weapon designer, tester, and as the Assistant to the Secretary of Defense for Atomic Energy for three

different secretaries. According to Dr. Barker, the safety standard for U.S. nuclear weapons has always been to make these weapons as safe as our technology will permit. This means that as technology improves, so too should the safety features of our nuclear weapons.

But some safety features, such as insensitive high explosives, cannot be added to some of the weapons in our stockpile without testing. Therefore, the effect of the CTBT on the U.S. nuclear stockpile is to make it less safe than it otherwise would be. According to Dr. Barker in testimony to the Senate, "The history of U.S. nuclear weapon development is that with the design of each new weapon, efforts were made to incorporate the latest safety features in a steadily evolving technology of safety. When weapons remained in the stockpile so long that their safety features were too deficient with respect to then current standards, these systems were retired solely because of this deficiency."

So because the CTBT does not allow testing for safety or for any other reason, the United States will face the dilemma of fielding weapons that aren't as safe as they should be or doing without the weapons. For those whose ultimate objective is the denuclearization of the United States, this is a good reason to support the treaty. But it is not a good reason for those of us who understand the continuing necessity of nuclear deterrence to the national security of the United States.

It is also risky to insist that the United States will not have a future need for new types of nuclear weapons. Our nuclear deterrent must be configured such that it contains weapons to meet all conceivable needs. Over the years, in fact, one of the reasons the United States has continued to produce new types of weapons has been to respond to new requirements. Assuming the immutability of the current U.S. nuclear weapon requirements is, in my view, an unacceptable gamble. According to an unclassified March 1999 report by the Los Alamos Nuclear Laboratory entitled *The U.S. Nuclear Stockpile: Looking Ahead*, "[The] CTBT has reduced our flexibility and options to meet future nuclear deterrent requirements."

The major problem with an outmoded nuclear stockpile is that it reduces the credibility of the U.S. nuclear deterrent and, hence, undermines America's strategy of nuclear deterrence. As new threats develop for which the United States has no weapon that can be used, our adversaries will grow to view U.S. deterrent threats as less than credible. Obviously no one wants to use our nuclear weapons; but ensuring nuclear weapons are never used depends on ensuring they can be used. When they become unusable, or when we are faced with a situation for which we don't have the proper weapon, the American nuclear deterrent will have lost its relevance. This is good news for those who

view the CTBT as an important step on the path to denuclearization, but bad news for everyone who understands the continuing importance of nuclear deterrence to America's national security.

The four deficiencies I have just discussed are by no means the only faults of the Comprehensive Test Ban Treaty, but I will leave it to others to examine additional treaty shortcomings. While I'm sure some will take issue with my characterization of the CTBT as replete with problems, the simple fact of the matter is that even President Clinton recognizes that the Comprehensive Test Ban Treaty is brimming with serious deficiencies. This is why the President announced that the United States would sign the CTBT subject to the establishment of so-called "safeguards," and this is why the administration and treaty supporters are asking that these safeguards be made part of the resolution of ratification. What these safeguards tell us is that the administration does not want the Senate to consider the Comprehensive Test Ban Treaty on its own; that the administration does not believe the Comprehensive Test Ban Treaty to be capable of standing on its own merits.

These so-called "safeguards" are themselves deficient.

On August 11, 1995, President Clinton released a statement which said, "The United States will now insist on a test ban that prohibits any nuclear weapons test explosion, or any other nuclear explosion. I am convinced this decision will speed the negotiations so that we can achieve our goal of signing a comprehensive test ban next year. As a central part of this decision, I am establishing concrete, specific safeguards that define the conditions under which the United States will enter into a comprehensive test ban."

This announcement marked President Clinton's decision to seek a zero-yield test ban treaty, and part of what the President said is worth repeating. "As a central part of this decision, I am establishing concrete, specific safeguards that define the conditions under which the United States will enter into a comprehensive test ban."

The six conditions that President Clinton announced are not part of the Comprehensive Test Ban Treaty, but entirely separate from the treaty. The safeguards were announced for the simple reason that the treaty is itself inadequate, or there would have been no need for the so-called safeguards. Indeed, the support of the Joint Chiefs of Staff for the Comprehensive Test Ban Treaty is conditioned on these safeguards. As stated in their Posture Statement of February 2, 1999, "The Joint Chiefs of Staff support the ratification of this Treaty, with the safeguards package, that establishes conditions under which the United States would adhere to the Treaty." So the Joint Chiefs support the ratification of the treaty only with the safeguards package. And the President supports

U.S. entry into the CTBT with the safeguards package. But the fact of the matter is that the safeguards package, upon which the President and the Joint Chiefs have invested so much importance, is not part of the treaty.

The secret of the Comprehensive Test Ban Treaty is that it does not stand on its own merits, but is propped up by this "safeguards package" which has been accepted by no other nation that has signed or ratified the CTBT. So the Senate is being asked, essentially, to provide advice and consent to ratification of this treaty because of words that are not in the treaty. The Senate is being asked to provide its consent to something that no other nation understands to be the Comprehensive Test Ban Treaty. Even worse, the so-called "safeguards package" is itself inadequate in several ways, three of which I will now describe.

Safeguard A calls for, "The conduct of a Science Based Stockpile Stewardship Program to insure a high level of confidence in the safety and reliability of nuclear weapons in the active stockpile. . . ." I have already explained why this safeguard is inadequate.

Safeguard C calls for, "The maintenance of the basic capability to resume nuclear test activities prohibited by the CTBT should the United States cease to be bound to adhere to this treaty." But when Senate staff visited the Nevada Test Site earlier this year they found funding and personnel problems which call into question the sincerity of this safeguard.

Safeguard F calls for,

The understanding that if the President of the United States is informed by the Secretary of Defense and the Secretary of Energy (DOE)—advised by the Nuclear Weapons Council, the Directors of DOE's nuclear weapons laboratories and the Commander of the U.S. Strategic Command—that a high level of confidence in the safety or reliability of a nuclear weapon type which the two Secretaries consider to be critical to our nuclear deterrent could no longer be certified, the President, in consultation with Congress, would be prepared to withdraw from the CTBT under the standard "supreme national interests" clause in order to conduct whatever testing might be required.

This safeguard is particularly important. Each of the nuclear weapons lab directors has testified that this safeguard is of critical importance to them because it reassured them that President Clinton was not eliminating the possibility of resuming testing despite agreeing to a comprehensive, and in his interpretation zero-yield, test ban treaty. According to Dr. C. Bruce Tarter, the director of the Lawrence Livermore National Lab, in a letter to Senator JON KYL of September 29, 1997, "I regard of utmost importance the ability to exercise the 'supreme national interest' clause of the CTBT to address concerns that I have outlined here in my answers. This option mitigates the risks in pursuing a no-nuclear-testing strategy. We must be prepared for the possibility that a significant problem could arise in the stockpile that we

will be unable to resolve. The fact that the President's Safeguard F specifically cites this provision reinforces its importance."

In essence, the lab directors rendered their technical judgment on entering into the Comprehensive Test Ban Treaty based upon a political commitment. But the fact is that Safeguard F isn't even a commitment; it doesn't say the United States will resume testing if the lab directors can't certify a high level of confidence in the safety or reliability of a weapon in our nuclear stockpile. It doesn't say the "supreme national interest" clause will be invoked to resume testing if a problem is found which requires testing. Rather, it says that several different levels of interested parties all have to agree that there is a problem, and that they have to agree that the problem is in a weapon that the United States can't do without. So this opens the door for responding to a problem in our nuclear stockpile by deciding to eliminate from our stockpile entire types of our nuclear weapons. Removing weapons types with problems is a convenient way, after all, of eliminating problems from the stockpile. But it ignores the fact that we have these weapons in the stockpile because we need them.

Furthermore, Safeguard F is of little, if any, value because it doesn't commit to resume testing even if a problem is found in a weapon that it is determined the United States cannot do without. Safeguard F only makes this commitment: That, "... the President, in consultation with Congress, would be prepared to withdraw from the CTBT under the standard 'supreme national interests' clause in order to conduct whatever testing might be required."

To my knowledge, the United States has never made use of this clause in any treaty. But more importantly, we must recognize that neither the lab directors nor the United States Senate has received a commitment under this safeguard that testing will be resumed if necessary. The only commitment here is that the President will consult with Congress and be prepared to leave the treaty to test. This safeguard should reassure no one.

It is a falsehood to say that this CTBT is "The longest sought, hardest fought prize in arms control history."

President Clinton has said that the Comprehensive Test Ban Treaty is, "The longest sought, hardest fought prize in arms control history." The phrase has a nice ring to it; unfortunately, it is not true.

President Eisenhower, who imposed a testing moratorium from 1958 to 1961, supported the idea of a comprehensive test ban treaty. Except that the test ban he proposed was of limited duration (four to five years), and would have allowed low-yield testing. And during the 1958-1961 moratorium President Eisenhower authorized Hydro nuclear low-yield tests for safety reasons, which the Clinton administration maintains would violate the CTBT now before the Senate.

During the Kennedy administration the Limited Test Ban Treaty, which banned nuclear testing in the atmosphere, space, or underwater, was negotiated. No serious attempt was made to negotiate a comprehensive test ban treaty; this was also the case during the Johnson administration.

President Nixon's administration negotiated the Threshold Test Ban Treaty, but also didn't make any serious attempt to negotiate a comprehensive test ban treaty. There was no activity on this subject during the Ford administration.

During the Carter administration, the Peaceful Nuclear Explosion Treaty was signed. Serious consideration was given to a comprehensive test ban treaty, though, in Senate testimony in 1997, Dr. James Schlesinger, President Carter's Secretary of Energy, stated, "[when] President Carter dealt with the issue of the CTBT, it was at a time when we were seeking a 10-year treaty and the yields of up to two kilotons would be permissible." In other words, President Carter favored a limited-term treaty that allowed for low-yield testing.

Neither President Reagan nor President Bush pursued a comprehensive test ban treaty. In fact, responding to the Hatfield-Exon-Mitchell amendment on testing in the Fiscal Year 1993 Energy and Water Appropriations Act, President Bush stated in a report to Congress,

... the administration has concluded that it is not possible to develop a test program within the constraints of Public Law 102-377 [the FY '93 Energy and Water Appropriations Act] that would be fiscally, militarily, and technically responsible. The requirement to maintain and improve the safety of our nuclear stockpile and to evaluate and maintain the reliability of U.S. forces necessitates continued nuclear testing for those purposes, albeit at a modest level, for the foreseeable future. The administration strongly urges the Congress to modify this legislation urgently in order to permit the minimum number and kind of underground nuclear tests that the United States requires, regardless of the action of other States, to retain safe, reliable, although dramatically reduced deterrent forces.

Only the Clinton administration has actively sought an unlimited duration comprehensive test ban treaty. And only the Clinton administration has sought a zero-yield test ban treaty, though until August of 1995—two and a half years into President Clinton's first term—even his administration's proposals in the Conference on Disarmament allowed for low-yield testing.

President Clinton's statement that "The CTBT is the longest sought, hardest fought prize in arms control history" is false. I hope my colleagues will not be misled by the administration's transparent attempt to imbue this treaty with historical legitimacy it does not deserve.

Mr. President, we all agree that nuclear deterrence continues to be essential to the national security strategy of the United States. Where proponents and opponents of the Comprehensive

Test Ban Treaty begin to diverge is over the question of whether nuclear testing continues to be vital to ensure the safety and reliability of America's nuclear deterrent.

The administration says that Stockpile Stewardship will provide us with the requisite confidence in our nuclear deterrent, and that this confidence will therefore be sufficient for our deterrent to continue to form the foundation of deterrence. It is my judgement that the Stockpile Stewardship is a well conceived and an important program, but we don't yet know whether it will become an adequate replacement for testing. And until we know this, it would be dangerous to bind our nation to a treaty that prohibits testings.

I have pointed out some of the more significant shortcomings in the Comprehensive Test Ban Treaty to explain that the Stockpile Stewardship Program's uncertainty, while itself sufficient justification to oppose the treaty, is not the only reason for such opposition. In failing to define the word "test" the treaty leaves ambiguous its most fundamental terms. There is no factual basis upon which to determine that the CTBT will be an effective non-proliferation tool. The CTBT is not verifiable. And it constrains the United States from maintaining high safety standards for the nuclear stockpile and from ensuring that our stockpile, in its configuration, is credible, a necessary condition for nuclear deterrence.

Furthermore, the so-called "safeguards" announced by the President are nothing but a crutch, demonstrating that the Comprehensive Test Ban Treaty cannot stand on its own merits.

Finally, I have taken the time to dispel the myth that this treaty before us is the "longest sought, hardest fought prize in arms control history." This zero-yield test ban treaty is unlike any treaty attempted by any previous administration. While a few sporadic and mostly half-hearted attempts have been made to attain some form of a comprehensive test ban treaty in the past none of these efforts was in pursuit of a zero-yield, indefinite duration treaty. There is not an unbroken lineage, extending back some 40 years, for this treaty, and it is factually incorrect to suggest otherwise.

Mr. President, arms control treaties must be judged by the straightforward standard of whether or not they enhance the national security of the United States. The Comprehensive Test Ban Treaty fails to attain this standard.

Given the limitations of current technology, it is simply not possible to be simultaneously for nuclear deterrence and for this Comprehensive Test Ban Treaty. The two positions are mutually exclusive.

In his book *The Gathering Storm*, Winston Churchill observed, "Facts are better than dreams." "Facts are better than dreams." Applying this observation to the Comprehensive Test Ban

Treaty leaves one no choice but to oppose this treaty.

Mr. BIDEN addressed the Chair.

The PRESIDING OFFICER. The Senator from Delaware.

Mr. BIDEN. Mr. President, I find the leader's comment extremely fascinating. I want to set the record straight on a couple of minor details, as they are.

No. 1: The letter we sent was on July 20. The opening paragraph said:

We urge you to hold hearings on the Comprehensive Nuclear Test-Ban Treaty and report it to the full Senate for debate. Most importantly, we ask this be done in sufficient time to allow the United States to actively participate in the treaty's inaugural conference of ratifying states to be held in early September.

We wrote that in July. The assumption, anyone in good faith would assume, was we have hearings now—July, August, and September. We had none. We did not have any. Zip. None.

The majority leader said, "Hearings are underway now." That is his quote. They are not underway now. The day before the treaty, the Foreign Relations Committee held its first hearing, on the day after we are discharged of responsibility. With all due respect to my friend from the great State of Virginia, chairman of the powerful Armed Services Committee, the only committee of jurisdiction under the rules is the Foreign Relations Committee. Their input is important. We love to hear their opinion, as we do the Intelligence Committee. They have no jurisdiction. It gets sent to our committee, not to theirs. And we have 1 day of hearings after we are discharged? Give me a break.

Mr. WARNER. Will the Senator—

Mr. BIDEN. I will not yield now. The Anti-Ballistic Missile Treaty had 8 days; SALT I, 8 days of Foreign Relations Committee hearings, 18 days on the floor of the Senate; the INF Treaty in 1988, 23 days of Foreign Relations Committee hearings, 9 days on the Senate floor; Conventional Forces in Europe Treaty, 1991, 5 days of Foreign Relations Committee hearings, 2 days on the floor; START I, 19 days of hearings in the Foreign Relations Committee, 5 days on the floor; START II, 1996, 8 days in the committee, 3 days on the floor; chemical weapons, 14 days in committee, 3 days on the floor; NATO enlargement, 7 days in committee, 8 days on the floor; Comprehensive Test Ban Treaty, 1 day of hearings after we are discharged. No committee report.

Look on your desks, I say to my colleagues. Find the report. Find me a report that makes any recommendation. Come on. Come on, this is a stacked deck. The idea that we are going to vote on a treaty that everyone acknowledges, opponents and proponents, is maybe the single most significant treaty we will vote on to determine the direction of this country in terms of strategic rationale, and we do not even have a committee report?

If you want to go down the list, the number of months between the time

the treaty was sent to us and the time it got to the floor, we are talking over 2 years. In the case of ABM, 2 months; INF, 4 months; CFE, 8 months; START I, 13; START II, 32; chemical weapons, 37. We keep going higher and higher. Look at who is in charge when we have these.

But, my Lord, the idea we have had hearings, we have had sufficient time to consider it, don't get me wrong; in each of these other treaties, an incredible, valuable contribution and report was filed by the Armed Services Committee and an incredible, valuable position was taken and a report by the Intelligence Committee. They were absolutely necessary and needed, neither of which are available now. That is why Senators are arguing about the determinations.

For example, I just spoke to General Powell, as my friend from Virginia spoke to General Powell. I wrote down exactly what he said. I just got off the phone with him.

He said the most important reason why he wants this delay is so it does not get defeated. That is an important little point.

The second point he said was: I still support this treaty.

The third point was: But in light of the way this is being taken up and the confusion raised, it is better for the country and everybody to have all this sorted out in an orderly fashion so we all know what we are talking about.

He knows what he is talking about. He still supports the treaty, but he made a central point, the point Senator HAGEL made, and that was: We have not had sufficient debate. Therefore, we can have the kinds of comments made, honest disagreements, my friends from Virginia can say: This is not verifiable. And the Senator from Delaware says: It is verifiable.

For example, my friend from the Intelligence Committee, the distinguished Senator from Arizona, quoted in his opening statement the Washington Times with regard to verifiability. I will discuss this in detail later. He is on the Intelligence Committee. He knows nobody in the intelligence community came in and said they have evidence that Russia has, in fact, detonated a nuclear weapon. He knows that.

Mr. KYL. Since the Senator says I know certain things, may I simply interject to make this point: As Senator BIDEN is well aware, it is important for Senators to quote only open-source material, such as newspapers, and never to refer to matters in the Intelligence Committee which are classified. So this Senator will refrain from quoting classified material and will be bound by our rules only to refer to articles and newspapers, such as the Washington Times.

Mr. BIDEN. I respectfully suggest if you quote newspaper articles and you have some reason to believe a newspaper article is not consistent with what you know, then maybe we should not quote the newspaper articles.

The point I am making is a very simple one: Nobody in here has enough evidence, based upon a record, other than the probably 10 or 12 of us to whom responsibility is assigned to know this material; I doubt whether if you poll this Senate, intelligent women and men, that their degree of confidence—and I will be devil's advocate—for or against the treaty is as high as it has been in the past with other treaties because we have had extensive debate before.

When we talk about this notion that we are, in fact, in a position where what we asked for—and I wish the majority leader was still here. It was the Biden resolution that was going to be attached to an education bill that called for a sense of the Senate that we, in fact, hold hearings. Standing in this well, the leader—and he has acknowledged this and he made a point of this—walked up to me and said: If you will withhold that resolution, we can work out giving you a vote on this. He did say that, and I said fine.

The point is, we were not asking for a vote without hearings, ever. The point is also, accurately stated by many, in retrospect, in hindsight, should some of us have objected to the unanimous consent agreement? The answer is yes. Yes.

Here is where we are, and it is true, it is totally within the power of any single Senator to insist we vote. If that is the case, so be it. I am ready to debate the last few hours we have, and we vote. But I defy anyone to suggest this is the way in which they want the Senate in the future on other treaties of any nature, arms control or not, to proceed, which is to wait 2 years, do nothing, have no hearings in the committee of jurisdiction, wait until the committee of jurisdiction is discharged, hold 1 day of hearings, leave 14 hours of debate with one amendment available to each leader. I do not ever remember any treaty on which we restricted amendments or covenants. I do not remember that.

On the chemical weapons treaty, we had a whole range of amendments, all developed in the Foreign Relations Committee after extensive hearings.

So, folks, this is not the way to do business. But if we are going to do business this way, so be it. I cannot do anything about it except agree with the Senator from Virginia that we should not go forward. I agree with former General Powell. I agree; we should not go forward. If we do, we do. But it is going to be upon those who conclude that this is the way we should conduct business.

I think we are setting bad precedent after bad precedent after bad precedent by the way in which we are proceeding. Again, it is true, tactically those who oppose the treaty are in a very strong position now. I give them credit for their tactic. But I hope they will put tactical advantage beneath substantive responsibility.

If their case is as strong as they say, I would assume they would feel even

better to have it debated at length, have the committees thoroughly explore it, and have it made clear to the American people so that when they vote it down, the American people—on average, 80 percent of whom support the treaty, based on all the polling data anybody has read—will not have to wonder why they went against the public will. They will be able to make their case, even if it is for no other reason than that.

So, Mr. President—

Mr. WARNER. Would the Senator yield for a question?

Mr. BIDEN. On his time, I am happy to yield. Again, I apologize to my friend from Georgia. I told him he could come and speak. I will yield to him. I did not anticipate the majority leader coming to characterize the circumstances different than—he is entitled to do that; I am not criticizing him—the views of the Senator from Delaware of the characterization.

Mr. WARNER. On our time, Mr. President.

The PRESIDING OFFICER. The Senator from Virginia.

Mr. WARNER. Mr. President, this is the time for cool heads, sound minds, to make most difficult decisions. I listened very carefully to our distinguished majority leader. And I have listened to my colleague and friend from Delaware.

My colleague from Delaware dwells on the process. This situation today is solely the result of the unanimous consent agreement, proposed at first by the majority leader of the Senate, and studied for a period of 3 days. Our majority leader has a right to believe that 3-day period of study enabled my good friend from Delaware and all others to examine this situation and determine, on the fairness, the propriety and, indeed, the national interest of bringing this treaty up today and Tuesday for floor debate.

And for having hearings in the Senate Armed Services Committee—I am sorry that my friend somewhat disparages the jurisdiction of this committee. But we have the jurisdiction. And I can point to the rules over the critical part of this debate, and that is the stockpile of nuclear weapons; that is the exclusive province of our committee. It is an integral part.

In that vein, we held 3 days of hearings. One was behind closed doors, when the intelligence community, to the extent I can reveal it, on their own initiative brought up the need to start a total new survey about the ability of this country, and indeed others, to monitor the terms of this treaty. We did not ask for it. They did it on their own initiative. They brought it up. That survey and study will take a period of some months and go into next year.

But the point is, I say to my distinguished friend from Delaware, this institution operates on the basis of rules. It was total comity between the distinguished majority leader and the distin-

guished minority leader for a period of 3 days; and finally the Senate—all 100 Senators—participated either by being on the floor or consultation with their respective leaders in the unanimous consent agreement. So process is behind us.

To me, to constantly bring up, as the Senator from Delaware did, the issue of the process, it has been covered by our distinguished leader today. It has been covered by the Senator from Delaware. We should move forward at this moment with this serious debate on the fundamental issue; and that is whether or not this treaty is in America's national security interest.

I think the press is accurately reporting the facts of the hearing held yesterday, again in the Armed Services Committee, when the Directors of the laboratories—these are not politicians, these individuals who have served in their capacity as top scientists for our country for 10, 12, 15 years—came before the Senate Armed Services Committee and told us, with the Secretary of Energy, their boss, sitting right there, their own opinions.

Any reasonable individual, in examining their statements in their totality, must come to the conclusions which are accurately reported in the very article that appeared today in the New York Times: They cannot give that degree of opinion that is needed to move forward on this treaty. They simply cannot do that.

Mr. BIDEN. Will the Senator yield on my time?

Mr. WARNER. Yes, of course.

Mr. BIDEN. I want to make two points.

What I said about the lack of an intelligence community, CIA conclusion that Russia has exploded a nuclear device was cleared by the CIA to be able to be said. The operative word is "conclusion." They reached no such conclusion, and that was cleared. I did not speak out of turn.

No. 2, with regard to yesterday's—and through the kindness of my friend from Virginia, he has allowed a lowly member of the Foreign Relations Committee to sit in on his hearings. Yesterday, in front of the Armed Services Committee, all three lab Directors testified that our stockpile today is safe and reliable.

Let me read what Dr. Browne said. Dr. Browne said:

I am confident that a fully supported and sustained program will enable us to continue to maintain America's nuclear deterrent without nuclear testing.

Let me further lay out for you that each Director—all three—answered this when Senator LEVIN asked the following question. Senator LEVIN asked the following question to all three Directors:

Are you on board with this treaty?

Every single one of the lab Directors said, "Yes."

People will say: How can the honorable Senator from Virginia—and he is—say what he said and the Senator from

Delaware say what he said? How can they be in disagreement? I will answer the question for you.

Remember, I said at the beginning "keep your eye on the ball here." It is true, if we do not fully fund the stockpile at \$4.5 billion per year for 10 years, that all three of them lose confidence in the ability to do that.

It is kind of ironic. The main reason why we fear that we will fund this—and I challenge anyone to show me this is wrong—is because a Republican-controlled House of Representatives is balking at funding it, not because we have not; we have funded it. The distinguished ranking member of the Appropriations Committee is sitting behind me. We did our part.

Mr. WARNER. Mr. President, I believe the Senator from Virginia has the floor for the purposes of a question. But the distinguished Senator from Georgia—it had been indicated he could speak.

Mr. BIDEN. If we will all yield, I will yield. I just wanted to set the record straight.

Mr. WARNER. We will resume our colloquy thereafter. I think it is important that we have our colleague's remarks.

Mr. BIDEN. I do, too. I think it is very important we have the benefit of precision—precision—precision.

Mr. WARNER. Following that, we could resume our colloquy.

Mr. BIDEN. Following that, I will yield to my friend from New Mexico.

Mr. WARNER. Having had the floor, I have to reply to the assertions you made about yesterday's hearings over which I presided and sat there for 5 hours and 10 minutes.

Mr. BIDEN. Mr. President, I challenge my friend between now and the time—

Mr. WARNER. I will reply to that challenge, Mr. President.

Mr. BIDEN. Let me say it another way. I respectfully request my friend answer two questions while he is getting ready to respond: Did or did not Dr. Browne say: "I am confident that a fully supported and sustained program will enable us to continue to maintain America's nuclear deterrent without nuclear testing"? I will give him that. Secondly, would he be able to respond and tell me how I am wrong, that when all three Directors were asked, "Are you on board with this treaty?" and every single one answered: "Yes."

Mr. WARNER. I will provide that. We have to extend Senatorial courtesy to our colleague.

Mr. BIDEN. I yield the floor.

Mr. WARNER. I will be here throughout the entire day, Mr. President.

The PRESIDING OFFICER. The Senator from Georgia.

Mr. COVERDELL. Mr. President, I compliment the Senator. The debate is now beginning to occur on this very important subject. I associate myself with the remarks of the Senator from Virginia, as he explained to the Senate and to the public the nature of the procedure by which we have arrived at

this event and this process that the leadership of both sides of the aisle, over a 3-day period, concluded, which was agreed to by unanimous consent, would be the process for discussing the treaty. It is very important, in light of certain debates that had more to do with the process than the treaty. That was decided by the leadership. We are now debating the treaty, not the number of hearings, et cetera.

In the modern Senate, in my judgment, individual Senators come to decisions on monumental issues, such as this treaty, far more from their personal and internal counsel than they do whether or not there have been a series of hearings. Not very many Senators are able to attend those hearings, but they are gathering the information unto themselves, and they have been weighing the facts about this treaty for a long, long time. That is where the personal decision is likely to be made. I know that is the case in my case.

Therefore, I rise in strong opposition to the Comprehensive Test Ban Treaty. Despite what we are hearing from the other end of Pennsylvania Avenue and the other side of the aisle, ratification of this treaty is dangerous and would jeopardize the national security of the United States. President Clinton, the strongest proponent of this treaty, claims it would "constrain the development of nuclear weapons, contribute to preventing nuclear proliferation, and enhance the ability of the United States to monitor suspicious nuclear activities in other countries."

I believe the President and those advocates of that point of view are wrong on every count. The treaty will not prevent countries from obtaining or developing nuclear weapons. Take the 1970 Nuclear Non-Proliferation Treaty, a treaty designed to stop the proliferation of nuclear weapons. Despite its good intentions, which, of course, this treaty also embraces, nuclear proliferation continues today for one simple reason—nations act in accordance with their own national security interests.

The 1970 Nuclear Non-Proliferation Treaty did not prevent countries such as China, Iran, and Pakistan from acquiring or transferring nuclear technology. We cannot be so naive as to believe that such countries will behave differently if we pass this treaty. We must also take into account that our own conventional arms superiority will encourage other nations to cheat on the treaty.

My point is this: As the world understands that the United States cannot be challenged in conventional warfare—we are clearly the most powerful Nation in the world on any conventional act of warfare—that means other nations which may be adversaries will be pushed toward the need to have nuclear capacity as a *quid pro quo* to the United States. Strangely enough, even the administration admits that the treaty does not represent an effective deterrent for nuclear pro-

liferation or modernization. In testimony before the Senate in 1998, the Acting Under Secretary of State for Arms Control and International Security Affairs said he could not identify a single nation that wouldn't seek nuclear weapons, if the treaty were to enter into force.

Second, the treaty is not verifiable. Former Director of Central Intelligence, James Woolsey, testified before the Senate Foreign Relations Committee last year that "a zero yield Comprehensive Test Ban Treaty is extraordinarily difficult to the point of impossibility to verify from afar."

The distinguished chairman of the Foreign Relations Committee recently brought to this body's attention a Washington Post article which reported that the CIA cannot monitor low-level nuclear tests by Russia. So while our Central Intelligence Agency is telling us it can't verify compliance with the treaty, our administration persists in its misguided efforts to ratify the treaty. In effect, this administration is proposing that the United States adhere scrupulously to such a treaty while other nations will not be verifiably doing so by continuing to develop and acquire nuclear weapons. Ratification, then, means that the rogue and other nations would be gaining militarily over the United States.

Third, despite what the administration would have us believe, nuclear testing is essential to maintaining a strong and credible U.S. nuclear arsenal and deterrent. Most experts agree that nuclear tests are necessary to maintain the proper functioning of nuclear weapons and warheads and to modernize the existing stockpile for enhanced safety and effectiveness.

I want to digress a moment. If the world ever begins to believe that our arsenal is less than effective, it encourages bad behavior. If we ever come to believe we are not certain about our nuclear arsenal and its capacity, we become destabilized as a nation.

Many weapons believed to be reliable and thoroughly tested nevertheless developed problems which were only discovered and could only be fixed through nuclear testing. One-third of all the weapon designs placed in the stockpile since 1958 have required and received postdeployment nuclear tests to resolve problems. In three-quarters of these cases, the problems were only identified and assessed as a result of nuclear testing and could only be fixed by nuclear testing.

The proponents of the treaty think we can do this through computer modeling, but most experts will quickly tell us that we don't know whether the computer modeling will work and probably won't know for another 10 years.

In short, only by testing will the United States be able to maintain a nuclear stockpile that is able to defend against threats from abroad, rogue nations, to provide a credible deterrent to hostile nations and maintain confidence in the safety and reliability of

our nuclear weapons, and to make sure those other nations understand we have a reliable, effective nuclear deterrent.

It is important to note that the value of America's nuclear arsenal diminishes dramatically if nations, rogue or otherwise, come to believe our deterrent is not safe and not reliable. The nuclear umbrella extended for decades to cover allies such as Germany and Japan has been an important factor in convincing these technologically proficient nations not to acquire their own weapons, precisely because of the safety and reliability of our weapons. So what kind of decisions do they begin to make if they ever believe they cannot count on the U.S. nuclear deterrent?

Mr. President, I want to make a couple of closing comments.

The other day, Senator BIDEN of Delaware, in his earlier remarks about the treaty, said something to the effect that this decision would "hang over the heads" of each of us who will be called upon to vote. The inference was, well, if those of us who oppose the treaty make an error, that will hang over all of our heads. I point out to the Senator from Delaware that this decision will live with each of us, no matter what decision we make.

Mr. BIDEN. Will the Senator yield on my time?

Mr. COVERDELL. Yes.

Mr. BIDEN. The inference was not that those who voted no were the only ones who would be taking a chance; the inference was that whomever among us turned out to be wrong is going to, in fact, have a long time to pay.

These are big stakes. If, in fact, you vote no, and if proliferation accelerates, whether or not because of this, mark my words, those who voted no will pay. Conversely, if you vote yes and we find out a year or 2 or 3 from now that all those horrible concerns about the treaty turned out to be true and the Soviets have a superiority and the Chinese are doing this, then those of us who voted for the treaty will be held accountable, as we should. I wasn't applying it to one side.

Mr. COVERDELL. He has clarified and made the very point I was going to make—that, clearly, if somehow proliferation accelerated, those who have voted no would have to feel they made an error in judgment. On the other hand, if those who voted for it found themselves in a situation where the U.S. deterrent had diminished, that the new testing procedures were not as effective, and that world rogues had suddenly become very weighty in the world, much would hang over their heads.

My closing point is this: Which mistake is worse? In other words, if the mistake is another nation has a weapon that it didn't today, that would not be good. I personally don't think this treaty is going to stop those nations. But, on the other hand, if the conclusion of the error is that we are unable to defend ourselves, first—or secondarily, we have somehow destabilized

our allies and have made the world less safe, which is a worse error? I think of a poster I have seen in the office of Senator GRAMM of Texas. It says: When the day comes, if the lion lies down with the lamb, we better be darn sure we are the lion.

The emotion the Senator has expressed today is laudable. It is a weighty decision. I think the Senator gives more to the reports and the process than I would, from my limited experience. He has been here a lot longer. As I said, while he was off the floor, I think personal counsel has a weightier importance on these kinds of issues. In the limited time I have been here, we have been through three of them now in the process. But if I were to have to pick between where we would be on the balance of mistakes, I would pick the safer one, where we have the capacity to defend ourselves.

Mr. BIDEN. Mr. President, on my time, in response, I think the Senator from Georgia has narrowed it precisely. Let me tell you why I think the side on which he errs is the biggest chance. There is a safeguard F in this treaty which says that if at any time those laboratory Directors certify that they cannot certify the reliability of our stockpile—and they must do it once a year—and communicate that to the Secretary of Defense and the Secretary of Energy, and they concur with that judgment, which most assuredly they would, barring their place in history being besmirched in a significant way, then we have in this treaty the absolute authority, under safeguard F, to withdraw.

So the reason I believe we should err on the side of not testing nuclearly—knowing that if, in fact, it becomes necessary to safeguard us, we can get out legally in a moment's notice—is that failing to take that very small chance, we open up a door that cannot be closed, or is difficult to close. If, as a consequence of no treaty, China begins significant testing and MIRVs ICBMs and moves them from 18 to 800, or 8,000, or 5,000, if in fact Pakistan and India test further so they can deploy their weapons on the nose cones of missiles that can be fired, it is incredibly more difficult to turn that clock back, to put that genie back in the bottle, than it is for a President of the United States, upon the recommendation of the Secretaries of Defense and Energy, saying, Mr. President, get out, get out.

The last point I will make is this: I know of no program—and I stand to be corrected—where there has been a quantum leap in the capacity of a country that has taken us by total surprise, where we have had less than a year's notice. The likelihood of any fundamental change in the strategic balance during the year period, during the last certification and the next certification, is not reasonable. We are the only Nation in the world with the sophisticated capability to even approach that possibility. So that is why I respect my friend from Georgia, and he

knows I do. That is why I decided we are taking very little chance relative to a gigantic chance if we turn the treaty down.

I yield the floor.

Mr. COVERDELL. Mr. President, the Senator from Delaware knows the respect is mutual. I just point out that people of honor and good faith can come down on very different sides of these questions, as we have seen among experts.

Ultimately, each of us will have to personally balance this equation. The political process that has already developed this treaty is the very thing that worries me about the escape clause you talk about. I don't have any confidence in it. I just don't believe, as you do, that this treaty will put any genie in the bottle. I will close with that. I admire the Senator from Delaware for his work. We simply have come to two different conclusions in this matter.

I yield the floor.

Mr. BIDEN. Again, as usual, my friend from Georgia goes to the heart of the issue. If you put everything else aside, you take all the detail away, you will find at its root—I am not suggesting that everybody who opposes this treaty doesn't believe everything they are saying; they do. But at its root, it comes down to a belief that has been the case in almost all the debates on treaties—and I am not suggesting that everybody has opposed every treaty. But they have argued one final piece, and that is simply that they lack faith in the political will of this country to do whatever is required. That has been the closing and legitimate argument raised. It was raised in START I, START II, SALT I, and SALT II.

The issue was whether or not we would so change the political climate that we lull ourselves to sleep. My friend from New Mexico remembers the argument that we would not have the political will to reengage. It is a legitimate argument. I do not give it short shrift. I think it is the single most serious argument against this treaty.

I will close by saying, as the kids say, I will put my experts up against your experts. I have more of them, numerically.

Mr. President, I think it is our turn. I yield 10 minutes to Senator BINGAMAN.

Mr. BINGAMAN. Mr. President, I thank the Senator from Delaware, Mr. BIDEN, for yielding time and also for his eloquent statements in opposition to going to a vote on this treaty.

First, I know everyone says we shouldn't talk about the process, that the process is history. But I think we should talk about the process and talk about the fact that next Tuesday is not the time this Senate should dispose of this issue. The reality is that there is a lot of uncertainty and a lot of confusion.

I learned early in my career that when you are uncertain, the best thing to do is sleep on it, take a little time,

and let the issue resolve itself in your mind before you move ahead. And clearly there are a lot of unknowns out there that we need to know before we finally vote on this issue.

I hope that leadership—particularly the majority leader—will find a way to step back from this vote and give the Senate time to get the newest estimate from the intelligence community about what the capabilities of Russia are with regard to low-yield weapons development and also to get other expert advice.

Clearly, this is an issue of monumental importance. As we start a new century, we should not rush to judgment before we have given every Senator an opportunity to learn the issue and to understand the implications of it.

Our nuclear arsenal was developed, and has been maintained, because we believe having a safe and credible and reliable nuclear arsenal has improved and continues to improve U.S. security. I believe that. I am sure we will continue to maintain that nuclear arsenal as long as we still have that judgment.

The Comprehensive Test Ban Treaty, which is the issue now before us, raises the question of whether we can continue to maintain our nuclear deterrent and maintain our national security through having that nuclear deterrent under a regime of no additional nuclear testing. I believe we can.

I believe the benefits we derive from going ahead with this treaty and in slowing the spread, and the improvement, of nuclear weapons around the world by others make this treaty very much in our national interest.

Some have argued that without the ability to test nuclear weapons, we cannot have 100-percent confidence that those weapons will work as intended. I agree with that. I think it is undoubtedly true that an unlimited testing regime will give us a higher degree of confidence in our own nuclear weapons than no testing at all. Clearly, that is true for all of our potential adversaries as well. They will do better at developing weapons, and they will have a more capable, reliable nuclear arsenal to point at us—potential adversaries will—if we go ahead and have them pursue unconstrained testing.

But we can, in my view, have sufficient confidence in the reliability of our weapons through the work we have labeled the Stockpile Stewardship Program. This is a program that has been discussed frequently on the Senate floor. It is one I have spent many hours studying and trying to understand in the nuclear weapons laboratories in my State—Los Alamos and Sandia.

I think we need to balance against this concern about lack of 100-percent confidence. We need to balance against that the consequences that would result from a rejection of this treaty by the Senate.

Senator MOYNIHAN spoke about the likely reaction of a rejection of this

treaty in India and Pakistan, both countries which have demonstrated their nuclear capability already and are on the way toward developing a real nuclear arsenal that can be used against each other or other countries.

Other Senators have talked on the floor about the likely effect of a rejection of this treaty on China or on Russia. The simple fact is that the United States is far ahead of any other country in the world in our ability to maintain our nuclear deterrent under a no-testing regime.

Our allies—and that includes our allies who have nuclear weapons—believe it is in their interest and in the interest of the world for us to go forward with this treaty and believe that, on balance, their security will be enhanced if we go forward with this treaty. If that is their judgment—those nuclear-capable countries depend much more on testing than we do—that a no-testing regime will, on balance, improve their national security, then I have trouble seeing how entry into a test ban treaty can put us at a comparative disadvantage when we have tremendous capability to determine the reliability and safety of our weapons without testing—not 100-percent capability, but we have great capability and capability that far exceeds that of any other potential adversary.

Let me say, in closing, I would like to go back to this issue of procedure and where we go. Since it is clear to me, and I think to all Senators and all observers of the Senate, that the two-thirds votes necessary under our Constitution to ratify this treaty are not present today in the Senate and are not likely to be on Tuesday, I think it would be a tragic mistake for us to go ahead with that vote next week. I hope very much that cooler heads prevail, as the Senator from Virginia said earlier in the discussion. I hope cooler heads prevail and we find a way to put this off to a time when we can approach it with more knowledge and better judgment.

In the final analysis, the question we must decide is whether this treaty will reduce the proliferation of nuclear weapons, reduce the number of states with nuclear arsenals, and lessen the likelihood of nuclear weapons being used in the next century. That is the issue before us. I believe it will accomplish each of those end results. I believe the treaty will have that effect. When it does come to a vote, I hope very much that two-thirds of the Members of this Senate have the good judgment to support the treaty.

Mr. President, I see there is another Senator wishing to speak. I yield the floor, and I yield the remainder of our time.

The PRESIDING OFFICER. The Senator from Alabama is recognized.

Mr. SESSIONS. Mr. President, I am excited and optimistic about our next century and about the next millennium. We made great human technical progress in the 19th century. A lot of

things happened in that century that were good. We continued that technological progress in the 20th century. Unfortunately, the forces of totalitarianism, war, fascism, and communism have run loose in the 20th century to an unprecedented degree. Millions died as a result. I do believe, though, the next century, the 21st century, can be the greatest in the history of mankind.

Hitler and his forces of national socialism were crushed in this century. Communism and the "Evil Soviet Empire" collapsed. The world is a better place with even greater possibilities. We can work together and promote peace, order, stability, and ensure economic, technological, and medical progress to an unprecedented degree. This, I believe, can and will happen.

Yes, there will be problems. Ambition, ignorance, greed, and hatred will not be eliminated from the face of this Earth. These will abide. But from a global perspective, they can be contained, and peace and progress can be expanded in the next century to an unprecedented degree. For this to happen, however, the United States must lead. It cannot be Russia. They have deep economic and political problems. It can't be China. They are driven by the Communist chimeras and old ambitions. It can't be Europe, for they have not achieved the political unity or the military strength to act quickly and decisively. The United States has the burden to lead for peace. And not just peace—we need peace with justice, a much harder goal.

We are a nation composed of immigrants from all the nations of the Earth. People from all over the world came here to live in freedom. We have also been blessed with the economic, technological, and military strength in addition to the cultural diversity that enables America to be a unique world leader.

Yes, many criticize the United States, but they all fundamentally recognize our critical role in a stable and healthy world order. This doesn't mean we are to be the world's policeman for every little matter, but we must lead with confidence and strength. It is necessary, therefore, for our country to have credibility when we speak, to be respected by all, to be feared by expansionist and dangerous forces, and to continue, with even more skill, our self-confident world leadership that we have shown in recent years.

That is why I have decided it is necessary for me to oppose the Comprehensive Test Ban Treaty. I am of the firm opinion this treaty will do at least two things. It will certainly cause our current nuclear stockpiles to be degraded. Simulated tests, all agree, can never be as good as actual tests. Secondly, it will reduce our capacity and, more importantly, perhaps, our will to improve our weapons systems—to keep up with scientific advancements. The result, therefore, will be that the United States will see its nuclear

power degraded and its capacity for world leadership eroded. This means less stability in the world. Our allies will have less confidence in our nuclear umbrella. Our adversaries will be more confident, more active, more willing to be aggressive and to push the limits. In addition, our confidence in our own ability to act and lead will be diminished. Our President and Congress must be certain of our ability to act.

Senator WARNER, chairman of the Armed Services Committee, a tremendous patriot with extraordinary experience in matters military, a man who loves his country, who supports our President when he can and believes he should, who opposes this treaty steadfastly, recently said there can be no doubt in the credibility of that stockpile. That is it, fundamentally. We can't have doubts, our adversaries can't have doubts, and our allies can't have doubts.

There have been a lot of discussions about verification. This treaty cannot be adequately verified. We have talked about a lot of other issues today. Safety—how can we be sure of safety if we are not testing our weapons?

I will discuss for a few minutes specifically what I believe is a fundamental danger or effect of a complete ban of all testing forever, which this treaty does. In effect, the goal of this treaty will be and is to cap, to freeze, to stop improvements in weapons systems. It will include our weapons systems.

Some say: JEFF, we can still do research and they don't have to do all this testing.

That is not entirely accurate. Yesterday, as the Director of the Sandia Laboratory testified, they have design data at this time that could be used to produce a new weapon, but they cannot test it to bring it online. That is a significant statement, I believe. We have that capability now, and we are not going to use it.

Of course, basic weapons, the Hiroshima-type bomb, do not need to be tested. Everybody who is of scientific sophistication in the world—and there are 44 countries today that are either estimated to be or are actually nuclear-capable—all over the world people have the capability of building a basic nuclear bomb. We ought to know this ban would have no impact on that. This treaty would have no impact on buying and selling of nuclear weapons from a country that has already produced.

What this treaty is doing—and I want Members to think about this—is attempting an act that is extraordinary. We will attempt to stop research and testing on new materials and new weapons. If the United States signs such a treaty, we know we will comply with it; we will comply with the spirit and we will not continue to research and develop through testing. Such a decision, I believe, would be unwise and would be contrary to human nature and our tendency to progress, improve,

and advance—characteristics of humanity.

To pass a treaty such as this will certainly slow our interest in modernization, but it is not likely to slow the research of other capable nuclear nations. They are behind. They—many, at least—will be determined to catch up. They will use this treaty to catch up, similar to the yellow caution flag when there is an accident on a race course—allowing those off the lead lap to catch up to the leaders. CTBT will allow other states that opportunity.

Secondly, in their efforts to catch up, our adversaries may well even achieve a breakthrough, a technological advancement that could leapfrog them even beyond the United States into nuclear leadership in this world. That will not only be bad for America, it will be a setback for stability and peace and justice for the whole world. We have an obligation to work to promote peace and stability.

The goal of this Nation, I so strongly believe, is to be a preeminent world power. We have to understand what comes with that: The responsibility to be strong.

President Reagan said a number of years ago:

Our policy is simple: We are not going to betray our friends, reward the enemies of freedom, or permit fear and retreat to become American policies, especially in this hemisphere. None of the four wars in my lifetime came about because we were too strong. It is weakness—weakness that invites adventurous adversaries to make mistaken judgments.

I think that is the history of mankind. Winston Churchill warned England about that when Nazi Germany was on the early march and they could have been stopped earlier at much less cost.

I have seen it argued by some that the passage of this treaty will freeze our nuclear leadership in place. I believe that is not sound reasoning. That is a foolhardy concept. It will stop America from improving our arsenal. It will stop America from improving our technology. It will allow, I submit, our adversaries to catch up and, God forbid, pass us.

Some may believe all the world powers are the same. They used to say we are just a bunch of scorpions in a bottle. I disagree. The United States has a unique role in the world, a unique ability to lead for good. Our leadership has been good for the world. I defy anyone to dispute it. When historians write of our role in the next century, I want them to write that we used our power to lead the world in great progress toward peace, with justice and economic and technological and medical prosperity.

This goal is not going to be furthered by fuzzy thinking. It will not be achieved if we just sign away, by this treaty, capabilities we have that enable America to lead. That is why we are able to lead—because we have superiority. If there are two football teams—and in Alabama we have a lot

of them—some of them like to throw a pass and some maybe cannot throw a pass so well. It would be nice to have a treaty beforehand that the one with the ability to pass would sign away that ability. That doesn't happen on a football field, and it won't happen in the world.

Our leadership is important, and our military power is crucial to it. That is the solid foundation on which we have to build. We benefited from a certain number of treaties with the Soviet Union that dealt with nuclear weapons in the past. I believe we can continue our efforts to reduce the number of weapons in our arsenal. I believe we can perhaps reduce by 50 percent the nuclear stockpile we have. Yes, we can do that. There are a lot of things we can do that promote peace. But to ban all testing of all nuclear weapons? That is a mistake. I do not believe that will promote peace.

I do not believe so. I favor our doing all we can do to stop proliferation, the spread of nuclear weapons around the world. The truth is, this will probably be done best on a nation-by-nation basis. When Pakistan and India had their fuss earlier last year and one tested, then the other one tested. Why? Because they felt their existence at stake, and no piece of paper is going to stop any nation from developing what it believes it has to develop to maintain its freedom, to maintain its autonomy, its independence as a nation. That will not happen.

What we have done, as the United States, is provide a nuclear umbrella. We have been able to say to nations: We are not going to let other nuclear powers do you in. Don't develop weapons, we will be there, we will stand firm. We have the capability to destroy anyone who attempts to destroy you.

People have relied on that. Many nations have. Germany and Japan could easily develop nuclear weapons. They have declined to do so based on our assurances.

Mr. BIDEN. Will the Senator yield for a question?

Mr. SESSIONS. Yes.

Mr. BIDEN. Why did they ratify the treaty, then, and why did they directly contact us in an extraordinary way through their leadership and say: Please, U.S. Senate, ratify it?

Mr. SESSIONS. I appreciate that question. It is my view—sometimes it is internal politics. Sometimes, though, it is a lack of being able to walk in our shoes.

This is a very significant time for us. We need to ask ourselves who we are as a nation. We are in a class of one. A treaty such as this would be good for Japan. It would be good for Germany, perhaps. But it would constrain us and, in the long run—they may not realize it—it could jeopardize our ability to guarantee their freedom.

So on the proliferation question, 44 nations have this ability to develop nuclear weapons and have them. It is already out there. Others are going to continue to get it. It will not stop.

I say to America: Please listen. We are a unique world power. We must use that power for good. We must maintain nuclear leadership in the world, and we cannot forfeit our power by signing it away for a treaty at the urging of politically correct and fuzzy thinkers.

I have a vision in my mind about treaties. We have to watch them, I think. It is Gulliver in the land of Lilliputians, stretched out, unable to move because he has been tied down by a whole host of threads. Powerful Gulliver, unable to move, tied down by strings and threads of multiple numbers.

We are not one of equals. The United States is in a category of its own at this point in history. This treaty might be good for Japan, England, France. It will not be good for us, and in the long term, the long run, I am convinced for world peace.

I remember—I wasn't in this body—a number of years ago in Europe there was a fuss—Senator WARNER remembers it, and Senator BIDEN—about whether or not to put Pershing nuclear missiles and intermediate-range missiles into Germany. The Germans, despite the most intense anti-nuke Greens and so forth who were there, agreed with President Reagan to do so. Critics said it would cause war and could lead to nuclear war. But the truth is, it led to peace. That strength, that commitment unequivocally made, saying we will not allow Germany, we will not allow Europe—we are willing to put our necks on the line, our nuclear power on the line, to guarantee the independence and freedom of Western Europe. It was a blow for peace. It helped lead to the collapse of the Soviet Union.

I recall a few years ago a discussion on Firing Line between William Buckley, Jr. and a liberal editor. At the end of the wonderful discussion, the editor poured forth his hopes and dreams for a more peaceful world.

Mr. Buckley paused respectfully for a while and then he said:

Well, friend, I hope you won't mind if I work to defend the Republic while you are working on these grand plans.

That is where we are today. I believe we have a burden. I believe we ought not to sign away the unique capacity that we have as a nation to improve our nuclear arsenal. One of the things we do so well, and most people may not know, is that we have produced sophisticated, highly targetable weapons—weapons capable of being very accurately targeted to attack military targets, hardened defensive targets, not just aiming them at population centers. So the extent to which we can improve our arsenal may give us the ability to be stronger militarily and actually avoid any more loss of life than would be necessary in such a conflict.

I think we are at an important time. The President asked for and wanted this debate. It is not as if anybody did not know it was out there. It had been discussed for quite a number of years.

The truth is, there are not votes to pass this treaty. Some say maybe we ought to pass on it and not vote on it this time and keep it alive. I thought about that. Some good people think that may be the right idea. But I have my doubts.

I think it might be a good thing for the world to see the Senate vote this treaty down. It is not a good treaty. I think it would send the world the word, and I think around the capitals of the globe we would have some hard-headed world leaders saying: Wow, we thought the United States could be moved by all this anguish and talk and pleas and political correctness. This is odd. They are able to act in their own self-interest and show leadership. I am impressed.

I think that might be the long-term result of this, instead of some of the calamities our friends would say will happen. I just do not think the world is so fragile that the United States, acting in its own rational self-interest that this treaty is not good, turns it down, that we are going to head for a nuclear holocaust. I think, indeed, it could cause us to go back once again to perhaps craft a treaty that is justifiable, that will work, that will allow us to modernize and innovate and at the same time promote security and peace in the world.

I yield the floor.

The PRESIDING OFFICER. The Senator from Virginia.

Mr. BIDEN addressed the Chair.

Mr. WARNER. I think I have recognition.

Mr. BIDEN. Will the Senator withhold for a moment? We were going back and forth. I assured the Senator from New Jersey that he would be able to go next. He is not going to take all that long. Since you and I are going to be here, is it appropriate?

Mr. WARNER. Mr. President, we are going to be here. But as a matter of courtesy, I just wanted to thank my colleague for his very valuable contribution.

He is a member of our committee. He attended the hearings that we have had in the course of this week, and he referred, with great accuracy, to the testimony that was given to our committee.

But clearly, good, sound, public servants, nonpoliticians, having spent anywhere from a decade to three decades of their lives working in their respective fields—whether it was the technical field, with the laboratory directors, or the military field, they had honest differences of opinion. There was no consensus, no strong consensus except the case, the weight of the case against the treaty grew day, by day, by day from that testimony, culminating, as you know, in this article in the New York Times this morning, which addresses the very heart of this treaty in which these lab directors—I don't know whether they are Republicans or Democrats or what they are; they are not wrapped up in this process of the Sen-

ate; they are not arguing a unanimous consent—are simply telling their fellow scientists the world over, the citizens of this country, the scientists in charge of maintaining the safety and reliability of the Nation's nuclear arsenals, they might not be able to do their job without nuclear tests. That is actual firing of weapons that would be outlawed—outlawed, they used the word—under this treaty.

I thank the Senator. I want to come back to the laboratory, the testimony my colleague from Delaware and I were in colloquy about. We intermittently yield to other Senators. I yield at this time.

Mr. SESSIONS. Will the chairman yield? I would like to say how much I enjoyed serving with Senator WARNER, the chairman of the Armed Services Committee. He has had full hearings on this matter. I have seen his conviction grow as day, after day, testimony in hearings has indicated this is not a good treaty.

I know the Senator from Virginia would support it if he believed it was the right thing. I know he has developed a firm view that it is not the right thing. I certainly respect that. It certainly has impacted my view of it, and I agree with him.

My instincts are that this is not good for America, and when we say no, it is not going to hurt us in the world. People are going to respect us because we are acting in our legitimate, just interests. We are acting for peace and stability, as a great leader of the world ought to act, and we ought not to be pushed around by some polling data to pass some treaty that is going to undermine our strength as a nation. I thank the chairman for his leadership.

Mr. WARNER. I thank the Senator, and I yield the floor.

Mr. BIDEN. I yield to my friend from New Jersey—how much time would he like?

Mr. TORRICELLI. Seven minutes.

Mr. BIDEN. I yield 10 minutes to my friend from New Jersey.

The PRESIDING OFFICER (Mr. FRIST). The Senator from New Jersey is recognized for 10 minutes.

Mr. TORRICELLI. Mr. President, I first note my appreciation, and I suspect all Senators, for the manner in which Senator WARNER and Senator BIDEN have conducted a debate of profound national importance. It speaks well of the quality and tone of debate in the Senate.

There are always moments in our lives we suspect we will always remember, those times that punctuate our activities and our experiences. Several nights ago, on the eve of the Senate's consideration of this treaty, President Clinton, sitting in the residence, reminded some of us that the last time the Senate rejected a treaty was in 1920, the Treaty of Versailles. The Treaty called for the establishment of a League of Nations. The United States, as reflected by the Senate, was so traumatized by the First World War,

so anxious for the creation of a time that it would never visit again, that it drew all the wrong lessons from the First World War. As a consequence, it defeated the Treaty. A Treaty that was, in Woodrow Wilson's words, "the last hope of mankind."

We now find ourselves in this debate 80 years later. Yet having emerged from the cold war, the trauma and sacrifices of generations in dealing with that enormous national struggle, I fear that, once again, we are drawing all the wrong lessons. Essentially, it is the belief of many of my colleagues that the arms control regimes of the last 40 years were successful; that the bipartisan foreign policy from Eisenhower to Clinton, based on a concept of non-proliferation and arms control regimes, could provide real security for the United States; and, that seeking security in arms races and technological military dominance was illusory.

It is extraordinary that, during this debate, we demonstrate a lack of confidence in arms control regimes or believe the United States is better defended outside of these treaties because that is such a contradiction with national experience.

In the last 40 years, the United States, from Eisenhower to Nixon, Kennedy, Johnson, Carter, Bush, and Reagan have ratified START I and II, SALT I and II, the ABM Treaty, the Chemical Weapons Convention, Biological Weapons Convention, the Non-proliferation Treaty, the Limited Test Ban Treaty, the Conventional Forces in Europe Treaty, Partial Test Ban Treaty, the Open Skies Agreement, the Outer Space Agreement, and signed the Missile Technology Control Regime. The nation is profoundly more secure because of each and every one of those treaties and regimes.

Every Senate and each President at a moment in history faced the same judgment we face today. Are we better off by allowing other nations and ourselves to develop weapons outside of these regimes or should we have confidence in our ability to verify and be more secure within their limits?

It appears the Senate may, for the first time in a generation and for the second time in this century, believe that it is better to reject a treaty negotiated by an American President and operate outside of its regime. It is a profound decision with enormous consequences. The simple truth is, arms control regimes have enhanced the security of the United States; indeed, they have enhanced the security of all nations.

Since 1945, despite their development, possession, and deployment by a variety of nations, nuclear weapons have never been used in a hostile environment. It may be the first or certainly the longest period in human history that weapons were developed and not used. Indeed, nations have even gone to war with each other or been in severe conflict and not used these weapons. It is the ultimate testament that arms

control works to protect national security.

I would understand if the leader of the Iranian Parliament or the North Korean Supreme People's Assembly were to rise in their respective chambers and argue passionately against this treaty. They would have their reasons. The treaty will allow the United States to maintain the preeminent nuclear stockpile in the world, having the only effective means of continuing to test its weapons by simulation, while the treaty would make it difficult for those nations to continue to develop and modernize their nuclear arsenal. Their opposition would be rational. Our opposition is irrational.

It would be understandable if members of the National People's Congress in Beijing would rise in indignation against China becoming a signatory to the treaty. The thought that China, a great power, possessing 18 missiles capable of delivering a weapon, now on the verge of developing important new and dangerous technology both to deliver these weapons and to miniaturize them to threaten a potential adversary in the United States or Russia or Europe, would join this treaty would be troubling to them.

The Chinese, by entering into this treaty, would be unable to test those weapons, making it difficult to know their effectiveness or their reliability. Their opposition would be understandable; it would be rational. Ours is not.

This treaty is an endorsement of the international military status quo, and at this snapshot in time in the life of this planet, the military status quo is that the United States is the preeminent military power with an abundance of weapons, sophistication of weapons, delivery of weapons. If this current arrangement and distribution of power is to be preserved for a generation, it means that every nation is accepting American preeminence. By their endorsement of this treaty and their signature of this treaty, extraordinarily, every other nation seems to be willing to accept that preeminence, ironically except us. We would reject the treaty and allow other nations at a relative disadvantage to test, develop, or deploy effective weapons.

There are several important consequences in the defeat of this treaty the Senate needs to consider: first, the damage, not necessarily militarily, but diplomatically to the leadership of the United States. This country has recognized for more than 50 years the only real security of this country is an alliance based principally on the foundation of NATO rested on the credibility of American political leadership.

The defeat of this treaty will put us at variance with the leaders of Germany, France, and Britain, who even on this day have appealed to the Senate to endorse this treaty. France and Britain have communicated their strong desire. They have reminded us that they have made changes in their own doctrine, and their own weapons

choices, based on this treaty. They have also reminded us that if we defeat this treaty, we are in some measure separating not simply our judgments but our future planning and security from our traditional allies—the foundation of our international alliance system of our security. It will cause damage to our credibility and our leadership that will not be easily repaired.

Second, defeat of this treaty, for all practical purposes, is an end to our efforts, undertaken on a bipartisan basis for a generation, on nonproliferation. It is a practical end to our nonproliferation efforts because it sends a message to each rogue regime, every nation that possesses the capability to develop nuclear weapons, that there is this new sense of legitimacy in them doing so, because the United States has rejected a treaty that would have contained this threat. The United States will lose credibility with nations, like India and Pakistan, when we argue that they should not test again or deploy weapons.

Third—perhaps most profoundly and immediately—it will lead to the possibility of the testing and the development of the technologies that China has obtained from the United States, through espionage or other means, and allow them to develop a full capability.

There is a final factor. The Senate has convened to debate the question of a treaty on a comprehensive test ban. But it is not the only treaty that is at issue. The defeat of this Comprehensive Test Ban Treaty will certainly mean that the START agreement pending before the Russian Duma will never be adopted.

Our chance, with a stroke of a pen, to destroy thousands of Russian nuclear warheads, potentially aimed at the United States—the greatest single threat to the security of this Nation under changed political circumstances—will never be destroyed. We debate one treaty, but we are deciding the future of two.

Earlier in this day debates centered on procedures and hearings, whether or not the treaty was fully considered. I serve as a member of the Foreign Relations Committee. I, too, must express my profound disappointment, as a representative of the State of New Jersey, and as a member of that committee, of not being given the opportunity to fully debate, to consider, to hear witnesses on what potentially could be the most important vote I will ever cast as a Senator.

People of good judgment might be able to differ on the merits of this treaty, but no one can defend that an issue of this profound importance to the life of this country did not receive the consideration it deserved or Senators within the comity of this institution were not given the due consideration to learn, debate, and be heard.

Because I believe, however, this issue is so important—while I am convinced of its merits and the need for immediate ratification—I end much as I began with that memory of 1920.

Most of us are probably convinced the Senate made the wrong judgment on the League of Nations, setting the world on a dangerous downward spiral of confrontation, having come to the false conclusion that America would be secure alone behind her oceans, that in isolation somehow we would find peace. It was wrong.

But in truth, if the moment could be revisited, President Wilson, while right on the issue, should have been less proud, more willing to meet his adversaries, and given them extra consideration on the treaty. While I profoundly believe President Clinton was right to endorse this treaty and to urge its adoption, I urge him to do the same today.

Let us make it unequivocally clear that the President of the United States, upon being told by the Director of the CIA that he cannot provide complete assurances that any unexplainable explosions of any source within Russia or China—by our national technical means—that it cannot be identified, it will cause the United States, unless explanations and inspections are made immediately available, to abrogate the treaty.

Second, the President make abundantly clear that any refusal to allow inspections, even if not absolutely required by the treaty, because it is in the national interest, would cause us to abrogate the treaty.

Third, the President commit the United States immediately to develop a national technical means to distinguish between different forms of explosions and small-level nuclear testing, and a program begin immediately.

And fourth, that if, indeed, as I believe is provided in the treaty, this President is informed by lab Directors that they can no longer assure the safety or the operational capability of our weapons, we will abrogate the treaty.

Let that be clear to the Senate and to the American people, let there be no question. And if there is no question on those issues, then there is no argument against this treaty.

I can remember as a boy asking a history teacher why it was, if history occurred as a continuum, from generation to generation through the centuries, history was written in chapters and in volumes, which both began and ended? And I remember she told me: Because that is how it occurs.

We are between the volumes of history. If this Senate is to decide that the bipartisan commitment to arms control as an element of national security for the last 40 years has been an error, we are ending not only a chapter but a volume of the military and diplomatic history of this country, we are entering into a very uncertain future, for our security is dictated only by what weapons are designed, deployed, and used—a lawless time that is not safer than the 20th century, but where the 21st century will be profoundly less safe.

It will be a time in which, I believe, Members of this Senate will have difficulty looking in the eyes of their children and their children's children explaining how there was a brief moment when we could commit all the nations of the world not to test these nuclear weapons and therefore as a practical matter to be unable, by many nations, to deploy them or ever to use them—and we lost the moment.

You may feel confident in your vote today; it may make political sense. You may be convinced of your own rhetoric, but you will never ever—if one of these weapons is ever used in a hostile environment; if one of these rogue regimes, from North Korea to Iran, ever tests one of these weapons—you will never look your own children in the eye with confidence in your judgment or feeling that you served them or your country. I have not been in this institution long, but long enough to know this treaty does not have enough votes to be ratified.

The President of the United States, recognizing the enormous potential diplomatic damage of its defeat and the consequences militarily of sending a message to other nations that there will be no further proliferation efforts or control on testing, has asked, as the Commander in Chief, the elected representative of the American people, that this vote not occur. What have we come to as a Senate, if the President of the United States makes such a request in the interest of our national security and our diplomatic position in the world and we turn a deaf ear? If you cannot do good by voting for this treaty, do not do harm by defeating it. Allow the moment to pass. At least allow the world to live with an ambiguous result rather than a definitive conclusion to our national commitment to arms control.

We vote on this treaty, but, indeed, we vote on whether to ratify or reject a national strategy of a generation and whether arms control will continue to be part of the security of the United States and our strategy of dealing with potentially hostile nations. It is not a judgment I would have had to mark the beginning of the 21st century. It shows a profound failure to learn the lessons of the 20th century, but it is what it is. At least we should be able to lose this moment and go on to debate and make judgments another day. I beseech of other Members of the Senate, do not hold this vote.

The PRESIDING OFFICER. Who yields time?

Mr. BIDEN. Mr. President, I don't see my Republican colleague on the floor. If there is no Republican wishing to speak, with the permission of my friend from Arizona, I yield to Senator BYRD.

Mr. KYL. Mr. President, may I inquire about the time remaining on both sides. I think we are roughly equal at this point.

The PRESIDING OFFICER. The majority has 4 hours 11 minutes; the minority, 4 hours 20 minutes.

Mr. BIDEN. I yield 15 minutes to the Senator from West Virginia. If he needs more, I am happy to yield as well.

Mr. BYRD. I thank Senator BIDEN. He is certainly one of the most knowledgeable of all Senators on this particular subject. I appreciate the fact that he has sat in on the hearings that the Armed Services Committee has held in the past 2 to 3 days.

Mr. President, the debate on which we embark today is of far-reaching consequence. We are deliberating a major treaty, the Comprehensive Nuclear Test Ban Treaty. Unfortunately, we embark on this debate effectively shackled, gagged, and, to a considerable extent, blindfolded.

I have had the privilege of hearing three days of extremely detailed and complex testimony on this Treaty—three days! And I am one of a select few Senators, members of the Senate Armed Services Committee, together with Senator BIDEN, ranking member of the Foreign Relations Committee, who were exposed to that information. In a similar vein, the Senate Foreign Relations Committee conducted one full scale hearing on the Treaty this week. But the fact remains that many, if not most, of my colleagues have had little opportunity to hear from the experts testimony on the pros and cons of this Treaty.

To be sure, there are a number of Senators who are well versed in the details of the Comprehensive Test Ban Treaty, but they are few in number. Senator LEVIN is one of those. Senator WARNER is one of those Senators. The rest of us are flying virtually blind. I wonder how many Senators have taken the time to read the Treaty? I wonder how many Senators have consulted with foreign leaders, those who will have to join the United States in ratifying this Treaty if it is to go into force, to get their opinions of the Treaty?

Mr. President, when I was majority leader, I visited other capitals and took Senators with me to talk with the leaders in foreign capitals about a treaty.

The Washington Post reported this morning that envoys from nearly 100 nations have implored the United States not to reject the CTBT. I wonder how many Senators fully understand the concerns of those nations? I wonder how many Senators fully understand our concerns?

Those who have read the text of the Treaty may be familiar with the broad brush strokes of the Treaty. But for even those Senators, the details—the implications of the Articles, the Annexes, and the Protocols to the Treaty—may be murky at best.

Mr. President, the hearings that the Chairman and Ranking Member of the Senate Armed Services Committee, Senator WARNER and Senator LEVIN, organized this week were extremely informative. So informative that I am overwhelmed by the amount of detail that I have heard.

I have often said that the Senator from Michigan, Mr. LEVIN, is a Senator who is exact. He scrupulously and agonizingly, it seems, peers through a microscope at every bit of minutia when it comes to details. That is the kind of study we need to give a treaty of this nature.

The President may sign a bill into law today. If, per chance, both Houses suddenly realized that that bill had to be repealed, we can do it. We could pass a repealer in one day in both Houses. We could do it, if the emergency existed. But not a treaty; it isn't that way with a treaty. We cannot approve the resolution of ratification today, send it to the President, the President cannot enter into the treaty formally tomorrow, and then on the second day or third day of next week, we adopt a new treaty or we take action to negate the treaty we have entered into. So a treaty is much different from a bill.

From Secretary William Cohen and General Shelton, Chairman of the Joint Chiefs, I heard that this treaty is in the national security interests of the United States. I respect their judgments. But from former Defense Secretary James Schlesinger, whom I also respect, and whose judgment I also respect, I heard that the treaty is flawed in terms of its duration—a permanent ban on nuclear weapons testing—and in its premise that only testing that can meet a so-called zero yield threshold is acceptable. I do respect Dr. Schlesinger's judgment. I heard confidence in the Stockpile Security Program expressed by Energy Secretary Bill Richardson, and I heard some caution expressed by the directors of the Energy Department's nuclear laboratories. Some caution there. Some caution. In short, I have heard some complex and conflicting testimony in a short period of time.

I must ask, why on earth is the United States Senate allowing a treaty of this magnitude and complexity to be rammed through the body with a maximum of 14 hours of debate, and with a limit of two leadership amendments? Have we totally lost all sense of responsibility? What would be wrong with having the vote next year after we have seen the new assessment, which we were told is on its way and will be completed somewhere around the first of the year, as I remember. What would be wrong? Or even, as some would prefer, what would be wrong with putting it off until the following year? Why do we have to do it now? Why do we have to do it next week? I am not one of those who have been saying we have to have a vote on the treaty. I don't cast any aspersions on anybody by that statement. But lest there be some here who think I am one of those who have been clamoring for a vote, I am not; and lest there be some who think that I have been prevailed upon by the administration to express opposition to our voting next week. I have not been contacted by the administration.

I am concerned about my country. I have heard various Senators say, well,

if I am wrong, this will happen, or if he is wrong, that will happen; or which would you want to bet on, or some such. I am not interested in who is right or who is wrong, for the sake of this Senator or that Senator. I am interested from the standpoint of my country if we make the wrong decision. It is my country. And then, being one who is dedicated to this institution, having served in it for 41 years, I am also concerned that this institution is not doing its duty in connection with the approval of the ratification of a treaty. I said something to the effect that we are talking about the separation of powers here. And we are, because the constitutional framers did not feel it wise to leave in the hands of a chief executive alone the making and the carrying into effect of a treaty. And so the framers formulated this great system that we have of the separation of powers.

Hence, the approval of the ratification of treaties by the U.S. Senate is a facet of the separation of powers, in the great scheme of things. Now, are we, as Members of the Senate—we who have taken an oath to support and defend that Constitution of the United States—are we, who are the trusted legatees of those framers who met in Philadelphia in 1787, to put aside our portion, our responsibility in that system of separation of powers and say, oh, well, the President is right, the administration is right, give it to them, and wash our hands of it, let's not spend anymore time on it? I don't think it is my proper responsibility to say I am ready to vote on it just because an administration—whether it be my party or somebody else's party—says I should vote on it.

We Senators have a responsibility under our separation of powers to do our share of the work. The Senate is supposed to have that responsibility by virtue of the Constitution. I say that we are shirking our duty if we fail to uphold our end of the separation of powers doctrine, if we don't take the time to know what we are doing here. There have been questions raised.

Are we seriously going to cede, without a murmur, our duty to advise and consent to the ratification of treaties? Are we seriously going to allow this travesty of the separation of powers to occur? It would be nobody's fault but ours if we do. I am not saying reject the treaty nor am I saying we should approve it. I have to hold my hand up before my Creator and say I don't honestly know how I shall vote on this treaty. I will not be pressured by anybody. And politics has nothing to do with it, in my view; in this instance, certainly.

Mr. President, I bring before the Senate two issues that were raised by Dr. Schlesinger that I believe merit consideration. The first is the duration of the treaty. It imposes a permanent ban on the testing of nuclear weapons. Now, we are all for nonproliferation. That is not the argument here. We are all for

nonproliferation, but there are other things involved here.

First is the duration of the treaty. It imposes a permanent ban on the testing of nuclear weapons. Frankly, I would be delighted to see a permanent ban on the testing of nuclear weapons—if we could be sure that the United States could maintain the reliability of its nuclear weapons stockpile without testing. But what I have heard this week from some people is that the Stockpile Stewardship Program is not far enough along in development to be absolutely certain, or even almost certain, that it will be an effective substitute for testing.

Our weapons are aging, and the nuclear scientists who developed and tested those weapons are aging also. For every year that the weapon ages, the scientist who tested that weapon ages a year. We can replace components of the weapons, but as Dr. Schlesinger and Dr. Paul Robinson, Director of Sandia National Laboratories, pointed out in their testimony, it is not so easy to replace the knowledge, the skill, and the judgment of the scientists who built those weapons. Can we really replace seasoned physicists with computer scientists? That is a question that I have, and an answer that I do not yet have.

Dr. Schlesinger also questions the advisability of the zero-yield threshold for nuclear weapons testing. Now, I am fairly certain that most American families will not be discussing over the dinner table this evening the relative merits of zero-yield versus low-yield testing. I doubt that many of my colleagues in the Senate will be discussing such matters over this Columbus Day holiday. But it is a vital issue in the deliberation of this treaty. I don't know enough about it, and I have read, I have listened, and I have researched, to a limited degree, the issue. I still have questions. I have doubts. It may be that my doubts are unfounded. It may be that my questions can be satisfactorily answered. But not in the time constraints and under the procedural constraints with which we are faced.

Mr. President, the Senate has a solemn duty to offer its advice and consent in the matter of treaties.

We are not only not offering our advice, but we may be offering the wrong consent if we vote next week. We may be going the wrong way. We may be ill advised in the consent that we give.

Not just consent, as I say, but advice as well. Advice comes in the form of understandings, reservations, amendments, conditions, and the like. But not on this treaty under these circumstances. On this treaty under these circumstances, understandings, reservations, motions, or any other binding expression of opinion are out of bounds. They are off limits, save for one amendment each to be offered by the two leaders of the Senate. On a treaty binding the United States of America to a permanent ban on the testing of the very weapons that form

the core of our national security; on a treaty of such incredible importance, the Senate is proceeding to a vote under a self-imposed—a self-imposed—gag order.

Has this body lost all sense of proportion? Has the Senate become so absolutely blind to its constitutional duties and so dedicated to its partisan political objectives that it is willing to abdicate to the executive branch the Senate's responsibility to give both its advice and consent on the ratification of treaties? Is the Senate truly willing to limit its role in the consideration of treaties to that of either rubber-stamping whatever the executive branch chooses to send us, or, alternatively, jettisoning it out of hand? That is no way to deliberate on a treaty, particularly one such as the Comprehensive Test Ban Treaty, which holds such promise, and likewise, perhaps, such peril for the future of America's national security.

I respect the passion with which many of my colleagues view this treaty. They can state with absolute certitude that it is in the best interests of this country to approve the ratification of this treaty. And I respect that view. If I thought like they do, I would also express with absolute certitude that I was confident in the treaty. But they have spent more time—far more time—than I have spent on it. And I admire them for that and compliment them for it. Conversely, others with equal certitude say that the treaty should be rejected.

I compliment Senator LEVIN, I compliment Senator WARNER, and others on the leadership they have demonstrated. I compliment my great friend from New York, the Senior Senator from New York, before whom I bow with great reverence. But think of the experience the Senator from New York has had in the field of foreign affairs. I don't know what his position on the treaty is. But I daresay that he, too, would say we need more time.

What is the driving force that says we absolutely cannot wait for a few more months, or even another year? I am not bound on having a vote next year. But this treaty is permanent. This is for keeps.

I respect the strongly held views of others. I wish I could share their certainty either in the merits or dangers of this treaty. If we wait 6 months, I might still be uncertain. But I would have had my chance. I would have had my day in court. The Senate would have fulfilled its duty under the Constitution. To me that is important.

I have spent 41 years of my 82 years right here in this Senate, and I have respected its rulings, its precedents, its rules, its history, and its customs. And I have to say to Senators that I often bow my head in sorrow at the way this Senate has changed since I came here.

I cannot imagine that Senator Russell, Senator Dirksen, Senator Fulbright, Senator McClellan—I cannot imagine that those Senators would

have been happy, would have been satisfied. They would have been restless. They would have been very uncomfortable with saying that we have to go through with this unanimous consent request which was sent around on the telephone to all Senators' offices—on a Friday—I believe it was Friday. All Senators are busy. It is all right with an ordinary bill, an ordinary matter, that comes before the Senate. But when it comes to a major treaty, everybody recognizes a major treaty.

That is not a simple treaty with one or two other nations—which can be very important, however. But this is a major treaty, a far-reaching treaty. It involves the security interests of our country. It involves our children, and our grandchildren.

Why shouldn't we take a little more time to be sure that Senators know that this is what we are about to do? We are about to take from every Senator his normal right to offer a reservation or an understanding or an amendment on a major treaty. But, as Shakespeare says, "What's done 'tis done." Yet can we not rectify this horrible mistake and give this Senate a few more months so that we can have some hearings, so that we can have more experts, so that we can take time to read the treaty and to understand it and to talk with foreign leaders? I cannot understand why we have thrown away our rights so cavalierly.

Mr. President, I come not to bury Caesar nor do I come here to call Lazarus from the tomb. I do not come here today to make a case for or against this treaty. I am here only to plead that we have more time so we can study it and be better prepared to render a proper and right judgment. That is why I am here on this floor today.

I joined with other Senators in a letter some time ago urging the chairman of the Foreign Relations Committee to hold hearings. That is the extent of the efforts that I have put forth in either direction.

I want to state for the Record, I am only here to urge that this Constitution requires this Senate to advise and consent to treaties that have been made by the President of the United States. That is all I am urging—and that we be given sufficient additional time. We are moving toward what appears to be a sure rejection of the treaty next week for all the wrong reasons.

It may be that this treaty is not in the best interests of the United States. It may be that it is in the best interests of the United States. Only one thing is sure: It is not in the best interests of the United States or the Senate to be driven by little more than political gamesmanship—and all sides, I suppose, to some extent, have been tarnished by that.

This is not necessarily leveling an arrow from my bow toward any particular side—political gamesmanship, I say, to an all-or-nothing vote on the

treaty next week with 3 days' worth of hearings, less than 2 full days' worth of debate, and virtually no opportunity to improve or to modify the Resolution of Ratification.

I close by urging the Senate to put off what promises to be a fatal vote on the Comprehensive Test Ban Treaty, and proceed, instead, with educating the Senate and the American people, so we can deliberate and decide the fate of this treaty and, who knows, this country and perhaps the world, with a better understanding of the consequences of our action.

I thank all Senators for their indulgence.

Mr. WARNER. Mr. President, could I ask my dear colleague and friend a question in the friendliest of veins?

Mr. BYRD. Yes.

Mr. WARNER. We serve together on the Armed Services Committee. The Senator from West Virginia came to every hearing and listened. And he asked the question that elicited a critical answer which indicated that the intelligence community needed time within which to complete this analysis regarding the ability of our country tomorrow or in the future to monitor another nation's testing if that testing constituted cheating under the treaty. The Senator was there yesterday throughout the laboratory hearing, and he had the courage to stand on this floor and say that he listened to those Directors, and, indeed, those raised the legitimate concerns.

Mr. BYRD. They did in my mind.

Mr. WARNER. They did in my mind also. The Senator from West Virginia knows in private conversations I have had with him and other colleagues that this Senator on this side of the aisle is doing what I can, although I will vote against that treaty today, and tomorrow, and the next day, as it is currently written. I recognize its importance.

I stayed here until 9:30 last night working with others to see what we can do to adopt a framework. I just left the Press Gallery. They asked me, Senator, what are the components? I said the essential component is for the President to share equally the responsibility of the very serious decision that our two leaders, Democrat and Republican, are faced with about vitiating this time agreement. The Senator from West Virginia recognizes that as a former majority leader himself.

I have just been handed this document.

Mr. BIDEN. Will the Senator yield? Is he speaking on his own time?

Mr. WARNER. Absolutely. Do not worry about small matters. Worry about what I am about to tell my dear friend.

We are all making the best of efforts. I am listening to Senator BYRD, in a very clear and precise way, an even-handed way, state his case. Then I am handed the President's speech in Ottawa.

A Reuters report states:

It is clear now that the level of opposition to the treaty and the time it would take to craft the necessary safeguard to get the necessary votes are simply not there. So I hope the Senate will reach an agreement to delay that vote.

That expresses our common purpose.

All I have called upon the President to do is to share the burden the leaders would bear should this decision go forward.

I turn the page. Again, quoting:

Establish an orderly process, a nonpolitical orderly process to systematically deal with all the issues that are out there and take whatever time is necessary to do it.

As I told the press a few minutes ago, the President, each day, is taking a step in realization of what has to be done. His National Security Adviser is quoted this morning saying the President asked the vote be delayed. The day before, the Secretary of State said for another day this treaty should be decided by the Senate.

I say to my good friend, Senator BYRD, the last quote of the President: "The whole thing is about politics."

Is everything you are saying today about politics?

Mr. BIDEN. Will the Senator read the whole letter?

Mr. WARNER. I am reading a press report.

Mr. BIDEN. If the Senator will yield, the remainder of that comment was:

... and to systematically deal with all the issues that are out there and to take whatever time is necessary to do it. With this treaty other nations will find it hard to acquire and to modernize nuclear weapons and we will gain the means to detect and deter. If we don't have the treaty for the United States, we will continue to refrain from testing and giving a green light to every other country in the world to develop and modernize nuclear weapons. I think it is clear what we ought to do but it is also clear we ought not rush to this vote until there has been an appropriate process in the Senate.

Mr. WARNER. Put it in context; is the Senator reading from the Ottawa speech?

Mr. BIDEN. I am reading from the President's statement on CTBT, October 8, 1999, in Ottawa as reported, a copy of which was made and given to me.

Mr. WARNER. I add to it this phrase in which he concluded: "The whole thing is about politics."

I have been here since 9 o'clock this morning, and the Senator has been here the same period; we are working throughout the day. We will be the last Senators to leave this floor tonight and return on Tuesday.

This is not about politics. This is about trying to help our colleagues reach a correct decision on the security interests of this country, I say to Senator BYRD.

Mr. BIDEN. Will the Senator yield?

Mr. WARNER. Yes.

Mr. BIDEN. He was at the same dinner as I was with the President of the United States when two present colleagues said: "Mr. President, I'm sad to say the political process has taken this over. This is about politics."

The truth of the matter is, politics is implicated in this. No one is suggesting the politics is good or bad on either side, that one side is better than the other. But two of our Republican colleagues at that dinner—the Senator heard them—said the same thing the President said.

We are acknowledging reality. We can all pretend here, with all the niceties, that politics has no part in this. Let's be real simple: The honest-to-God truth is, this is similar to the guy who says the emperor has no clothes on who usually gets shot after he acknowledges that.

Mr. BYRD. That was a child.

Mr. BIDEN. I am no child, but I may get shot politically for saying this.

Mr. WARNER. I say to my colleague from Delaware, I will not comment on the comments made at the dinner. I was there, but I think what was said there was confidential. I have always, as a policy when dealing with Presidents, not commented.

I am not criticizing the Senator.

I ask unanimous consent to have printed remarks by President Clinton from October 8, 1999.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

So they want me to give them a letter to cover the political decision they have made that does severe damage to the interest of the United States and the interest of nonproliferation in the world? I don't think so. That's not what this is about. They have to take responsibility for whether they want to reverse 50 years of American leadership in nonproliferation that the Republicans have been just as involved in as the Democrats, to their everlasting credit.

Now, they have to make that decision. I cannot bring this treaty up again unless they want to. I have asked them to put it off because we don't have the votes. I have talked to enough Republicans to know that some of them have honest, genuine reservations about this treaty, and they ought to have the opportunity to have them resolved, instead of being told that they owe it to their party to vote against the treaty and that the leadership of their party will do everything they can to keep us from writing safeguards into the treaty which answer their reservations, which is what we do on every other thing.

So I don't want to get into making this political. But they shouldn't tie the Senate up or themselves up in knots thinking that some letter from me will somehow obscure from the American people next year the reality that they have run the risk of putting America on the wrong side of the proliferation issue for the first time in 50 years. And they want to do it and then they don't want to get up and defend it before the American people in an election year. That's what this whole thing is about. That is the wrong thing to do.

We don't have the votes. I'm not going to try to bring it up without the votes. Let them take it down, but also agree on a legitimate process to take this out of politics. I will not criticize them as long as they are genuinely working through the issues, the way we did in the Chemical Weapons Treaty.

Mr. KYL. Mr. President, I ask unanimous consent a letter dated October 6 to the majority and minority leaders signed by two former Secretaries of En-

ergy, John Herrington and James Watkins, be printed in the RECORD.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

OCTOBER 6, 1999.

Hon. TRENT LOTT,
Majority Leader, U.S. Senate, Washington, DC.

Hon. TOM DASCHLE,
Democratic Leader, U.S. Senate, Washington, DC.

DEAR SENATORS LOTT and DASCHLE: We are writing to urge the Senate to reject the Comprehensive Test Ban Treaty (CTBT). We were each formerly responsible for managing the United States' nuclear weapons programs in our role as Secretary of Energy. We believe that unless and until the United States can ensure and prove the safety and reliability of its nuclear stockpile without testing, it should refrain from ratifying the current "zero-yield" CTBT, which is intended to be of unlimited duration.

Over the course of our history with nuclear weapons, testing has been essential for maintaining the performance of the stockpile, as well as the key to designing and certifying new weapons. As President Bush noted in a report to Congress in January 1993, "Of all U.S. nuclear weapons designs fielded since 1958, approximately one-third have required nuclear testing to resolve problems arising after deployment."

A modern nuclear weapon has about the same number of parts as an automobile, but it is much more complex. Some materials in our weapons, such as plutonium, are radioactive. Over time, these materials radioactively decay, altering both their own properties and contributing to changes age makes in the properties of other materials in the weapon. Even today, major gaps exist in our scientific understanding of nuclear explosives and how these weapons change as they age. These gaps in our knowledge increase the risk of undetected problems that could make our weapons unsafe or unreliable.

In 1992, the United States adopted a self-imposed moratorium on nuclear testing. The following year, the Administration and Congress initiated the Stockpile Stewardship Program. According to the FY 2000 Stockpile Stewardship Plan Executive Overview released by the Department of Energy (DOE) in March 1999, "The overall goal of the Stockpile Stewardship program is to have in place by 2010 . . . the capabilities that are necessary to provide continuing high confidence in the annual certification of the stockpile without the necessity for nuclear testing." This report also states that the success of the program is "dependent on a highly integrated and interdependent program of experimentation, simulation, and modeling."

We support the Stockpile Stewardship Program and the important research and development work that is being conducted at American weapons laboratories. But no one can state with a high degree of certainty that this program of experiments and computer simulations will be able to provide the same level of confidence in the safety and reliability of our nuclear weapons as we have historically achieved through testing. Therefore, the United States must retain the option of testing; not only to be able to verify the safety and reliability of our nuclear deterrent, but also to validate the Stockpile Stewardship Program itself. In 1987, the Congress required the Energy Department to craft a program that would ". . . prepare the stockpile to be less susceptible to unreliability during long periods of substantially limited testing." DOE was also required to ". . . describe ways in which existing and/or new types of calculations, non-nu-

clear testing, and permissible but infrequent low yield nuclear testing might be used to move toward these objectives." DOE responded to this requirement by designing a test-ban readiness program which anticipated a 10 year, 10 nuclear test per year program, which included comparing the results from new calculational tools and non-nuclear testing facilities to the results of nuclear tests. This program was never pursued because, throughout the Reagan and Bush Administrations, further limitations on nuclear testing were not viewed as necessary or desirable.

The Stockpile Stewardship Program is already falling short of its goal. For example, the National Ignition Facility, the flagship of the stewardship program, faces a key technical uncertainty: will it be able to reach thermonuclear ignition, a major goal for which it was designed? Furthermore, this important facility has recently fallen behind schedule and over budget. And, there may be new security risks because classified information under the Stockpile Stewardship Program will be concentrated in consumer systems, and much of the new computer code required for the program will be written by hundreds of people at participating colleges and universities.

Besides replacing testing, the Stockpile Stewardship Program is aimed at ensuring effective production capability. Even with the end of the Cold War, many production tasks remain essential for weapons maintenance. These include disassembly for inspection or repair, and the fabrication of components to replace those that have decayed or corroded. Some remanufactured components may be significantly different from the original parts due to the use of new manufacturing processes and materials. We risk introducing new defects into the stockpile if we are not permitted to conduct nuclear tests, when analysis clearly so demands, in order to verify that these remanufactured components do not affect the safety or reliability of the original design.

Responsible stewardship of the nuclear weapons stockpile has provided the foundation for U.S. deterrent strategy for the past half-century and, despite dramatic transformations in the geopolitical and international security environment, the stockpile will continue to make a critical contribution to U.S. security for the foreseeable future. Although we ascribe to the existing moratorium, the jury is still out as to whether nuclear testing should be eliminated by treaty. We consider it premature to make such a move at this time.

As a result, we are of the unqualified opinion that the United States should not ratify the Comprehensive Test Ban Treaty.

Sincerely,

JOHN S. HERRINGTON,
JAMES D. WATKINS.

Mr. KYL. In this letter, the two former Secretaries of Energy urge the Senate to reject the Comprehensive Test Ban Treaty.

I also note, part of my submission for the RECORD earlier was letters from various former public officials who urged rejection of the treaty. Behind me is a chart detailing who some of these people are. I thought it important, since I didn't read the entire list to Senator BIDEN earlier, to acknowledge who some of these people are.

These are people who believe it would be a bad idea for this treaty to be ratified and who speak from experience based upon their positions in the U.S. Government. I mentioned earlier the

six former Secretaries of Defense. Secretary Schlesinger testified, and his testimony was just cited by Senator BYRD as important testimony in opposition to the treaty. People such as Dick Cheney and others are in that list of six. Secretary Weinberger testified, as well.

In addition to that, four former National Security Advisers; in addition to that, four former Directors of the Central Intelligence Agency. In addition to that, four former Directors of the National Laboratories—this is important because once an individual is no longer in the position of the lab Director, accountable to the Congress, to the Secretary of Energy, and to the President, that person is free to speak his mind—have been very clear about the reasons the National Laboratory Stockpile Stewardship Program cannot be an adequate substitute for testing, in addition to the former Secretaries of Energy I mentioned, former Chairmen of the Joint Chiefs of Staff, and the former Commanders of the U.S. Strategic Command.

Let me also make a point I think the majority leader tried to make a few minutes ago but several people have reiterated a contrary view; that is, we have not had enough time to learn about this treaty. The message from the President of the United States transmitting this treaty was dated September 23, 1997, but the treaty was open for signature and signed by the United States a year before that, September 24, 1996. So the President waited over a year to send this treaty to the Senate for its action. Not long after that, however, the President began urging us to take it up, in two State of the Union Messages and in a variety of comments thereafter.

I took the President at his word, and I began studying the treaty, and I began talking to experts. I daresay there are not very many people in this body who know more about the treaty, as Senators, than I do. I know people such as Senator BIDEN and Senator LEVIN have done the same thing. They went to school and they became experts on this treaty. I recognize them as having an enormous quantity of information about it. I did, too, for a couple of years. All Senators had that opportunity. If they listened to the President, he was asking them to understand it and to bring it up.

There have been a variety of hearings, not just in the Foreign Relations Committee but in other committees as well. I have committee reports here. Let's see; this is from the Committee on Governmental Affairs. I have three different reports here, I believe: March 18, 1998; October 27, 1997; February 12, 1997; the Armed Services Committee hearings that have been specifically held, and so on. Of course, our knowledge does not need to exclusively come from hearings; we do have the ability to read and to talk to experts.

The point is, we have had ample opportunity to learn about this treaty.

The problem is, there are many in this body who for months demanded a vote, but what they really want is to only have a vote when they think they can win. They do not want a vote when they are going to lose. That is why you had this cacophony of voices calling for a vote and all of a sudden, when the majority leader accommodated them and they realized they did not have the votes to win, they began saying: Oh, we need more time. We need to put this off. We need to study it more.

There was ample opportunity to study it. I spent a lot of time studying this treaty. I suppose I could have been doing something else, but I spent the time studying it. And every one of my colleagues could have done the same.

Finally, there is this notion, the President says: This is the longest-sought, hardest-fought prize in arms control history. Every President has sought this. That is simply not true. Let's go through the record.

President Eisenhower, who imposed a testing moratorium for 3 years, supported the idea of a test ban treaty. But his test ban treaty would have been of limited duration, 4 to 5 years, and would have allowed for low-yield testing. As Senator BYRD noted a moment ago, two of the most salient points of former Secretary Schlesinger's testimony were to impress upon us the fact that this is a treaty in perpetuity that the President is asking us to sign. President Clinton's test ban treaty is for a zero yield, and everyone acknowledges you cannot verify a zero-yield treaty. That was not the treaty President Eisenhower wanted, so let's not say this all started with President Eisenhower and this is a treaty he wanted.

During the Kennedy administration, the Limited Test Ban Treaty which banned nuclear testing in the atmosphere, space, or underwater, was negotiated. But there was no serious effort to negotiate a Comprehensive Test Ban Treaty as of the kind President Clinton submitted. Incidentally, the Johnson administration took the same position as the Kennedy administration.

President Nixon's administration negotiated the Threshold Test Ban Treaty but also did not make any attempt to negotiate a Comprehensive Test Ban Treaty of the kind President Clinton has submitted.

There was no activity on the subject during the Ford administration.

During the Carter administration—and Secretary Schlesinger has presented some very interesting comments on this—the Peaceful Nuclear Explosion Treaty was signed and consideration was given to a Comprehensive Test Ban Treaty, though the United States at that time was seeking a 10-year treaty where yields of up to 2 kilotons would have been permissible.

Neither President Reagan nor President Bush pursued a Comprehensive Test Ban Treaty. In fact, responding to the Hatfield-Exon-Mitchell prohibition on testing in the 1993 Energy and Water

Appropriations Act, here is what President Bush said to the Congress:

The administration has concluded that it is not possible to develop a test program within the constraints of Public Law 102-377 that would be fiscally, militarily and technically responsible. The requirement to maintain and improve the safety of our nuclear stockpile, and to evaluate and maintain the reliability of U.S. forces, necessitates continued nuclear testing for those purposes, albeit at a modest level, for the foreseeable future. The administration strongly urges the Congress to modify this legislation urgently in order to permit the minimum number and kind of underground nuclear tests that the United States requires, regardless of the action of other states, to retain safe, reliable, although dramatically reduced deterrent forces.

So much for the proposition that all of the Presidents from Eisenhower through Bush support the notion of the Clinton forever zero yield Comprehensive Test Ban Treaty. It is simply not true.

There is another important point that President Kennedy made. President Kennedy was asked to comment on his experience with the 1958-1961 test moratorium. The reason this is important is, of course, we are looking at an 8-year moratorium on testing already here in the United States. This treaty would impose upon us a moratorium in perpetuity, with only one possible way out, and that is, it would be at least theoretically possible for the United States, if it believed, in its supreme national interest, it was required to do so—for the President to, in effect, step out of the treaty for the purpose of conducting one or more tests.

Here is what President Kennedy had to say about the difficulty of doing that. He said:

Some may urge us to try a moratorium again, keeping our preparations to test in a constant state of readiness. But in actual practice, particularly in a society of free choice, we cannot keep top-flight scientists concentrating on the preparation of an experiment which may or may not take place or on an uncertain date in the future, nor can large technical laboratories be kept fully alert on a standby basis, waiting for some other nation to break an agreement. This is not merely difficult or inconvenient; we have explored this alternative thoroughly and found it impossible of execution.

That is what scientists tell me would be the result of a Comprehensive Test Ban Treaty. We already know it would take at least 2 years to regenerate the support for a nuclear test at the Nevada Test Site. There is already significant testimony on the record that it would be exceedingly difficult to get the scientific expertise concentrated for the development of such a test. There is also significant comment on the fact that, obviously, this would send a very dangerous signal to our potential adversaries because there is only one reason to conduct such a test. Under the terms of the safeguard President Clinton has offered up here, it would be in the event of concern about the safety or reliability of our stockpile. So the whole world would know, if

the United States began preparations to conduct a test, we had a problem. That would be a problem.

One of my friends at one of the National Laboratories has in fact said, regardless of our need to do so—although we can always gain significant scientific knowledge from a test—we ought to remain capable of conducting a test and have at least one a year, just so we avoid the problem of nations believing we have problems with our stockpile. That way, we would not only have the benefit of a test but we would never signal to anyone in the outside world we were testing because we had a problem.

There is another reason to have a test. When the United States began thinking about this moratorium, there was a request of the laboratories to design a way to substitute for testing, and the Stockpile Stewardship Program came from that request. But as part of that, the Directors of the laboratories recommended that a series of 10 tests a year for 10 years be conducted to validate the Stockpile Stewardship Program. Those tests have never been held.

One of the reasons there is great discomfort with the notion that the Stockpile Stewardship Program could actually be a substitute for testing is that it has never been validated. I note that some of our allies, countries Senator BIDEN referred to earlier such as France, that conducted tests within the last 3 years, as well as some that perhaps would not be categorized as allies, such as China, that also conducted tests within the last 3 years, as well as other countries, could well have concluded—and part of this would have to get into classified information—could well have concluded that it was in their national interests to conduct tests in order to validate scientific experiments, in order to prepare for a long period of time in which they could not test, in order to develop warheads of the kind the Russians have developed, which are very robust and which can be reproduced every several years without the necessity of testing, something which the United States never did.

Our moratorium was imposed, in effect, in the middle of our nuclear development program. Our weapons have all been designed to be replaced with new designs on the assumption that there would always be testing.

We never did this testing to get us to the point where we could prepare for a moratorium, let alone an absolute ban on any testing in perpetuity. That is why the argument is absolutely false some make that we need to freeze in our advantage before others acquire the weapon; exactly the opposite is the case.

Some countries have developed what they believe will hold them for a long period of time in the future based on testing, while the United States rather abruptly stopped its program with President Bush and others suggesting

we should go forward with testing for a variety of reasons, but we did not do so.

We are now caught in the position where we have aging stockpiles with several of our warheads exceeding their shelf life, with all the problems attendant with that, and a moratorium in which we have not tested for 8 years and a prospect we would have a treaty to bind us, never to test again, never having validated the substitute program.

This is a reason why I think those who heard testimony from lab Directors, from people such as Johnny Foster and Robert Barker and other experts who have been involved in this area for years, have been rather shocked at what they have heard and why many of them have suggested they think they need to hear more about this.

There is, indeed, a great body of scientific evidence that suggests it could be a very bad thing for the United States to adopt this zero-yield test in perpetuity, and no amount of more time is going to change that result. That is why, again, there is no reason to extend the time of this treaty in order to refute these scientific facts. These scientists are not going to change their views. The science does not change. Plutonium and uranium radioactively decay. That is a scientific principle, so there is some constant here and nothing, including the passage of time, is going to change that.

Mr. President, I ask Senator WARNER if he wants to make a comment.

Mr. WARNER. Mr. President, the Senator can go right ahead and take all the time he wants.

Mr. KYL. I certainly do not want to do that.

There is one thing Senator BIDEN said with which I must take a little bit of issue. He noted we have some 6,000 warheads in our inventory, that this was a lot of warheads and certainly they would not all atrophy; in any event, we would always have enough, even if they were not all good.

I think it important to understand what our stockpile consists of right now, again, without getting into classified material. There are nine types of nuclear weapons in our arsenal. We used to have many more than that. We used to have redundant systems. Now, however, we have nine types, each of which are different. They have a different mission, and they are delivered on different delivery vehicles or by means of different platforms.

The total number of warheads can be divided, in effect, by nine. If any one or two or three of those classes of warheads have defects in them, it is a matter that affects all of the warheads of that category. It is not as if you have one car that is a lemon. Instead, it is as if you have a car that has to be recalled because every one of that make and model has the same problem. That is the way we have found our weapon defects to have existed in the past.

Let's say one-third of the weapon types have some defect. Roughly, that means about one-third of the weapons. What that means is that about one-third of the ability of the United States to respond with respect to certain targets would be inhibited, but more than that, there may be many targets that are unique to that particular kind of warhead against which we have no capability. It is not as if these warheads are fungible and we can throw any of them at any target with any delivery system. Each one has a specific purpose, and it is delivered on a specific platform. That is why we should not be so cavalier about concluding that since we have a lot of warheads we, in effect, can roll the dice.

I have a final point, since Senator WARNER is about ready, on a comment made by my friend, Senator SPECTER, who talked about the chain reaction if India and Pakistan should begin to detonate these devices and how can we ask them to sign on to this treaty if we are not willing to set the norm, set the standard of signing.

I remind my colleagues, for 8 years we have been setting the norm. We have had a moratorium; we are not testing. Did that stop India? Did it stop Pakistan? Has it stopped any other number of countries that believe in their national interest they want to acquire these weapons? No. Are many of these countries signatories to the NPT? Yes. They have already forsworn these weapons. We would be asking them to also forswear the testing of weapons that we now know they already have.

I believe we ought to do what is in the best interest of the United States for our own security and not get into this business of questioning what other people in the world will think of us if we do not go along with what they think is a great idea. Internationally, there are a lot of great ideas in the United Nations among countries, some of whom are not friendly and some are, but the United States has tried to be a leader in the world. I suggest we lead best if we go back to the drawing board and try to do this right, perhaps along the lines of some previous Presidents, rather than the unique way President Clinton proposes to do it with the zero-yield testing in perpetuity.

The PRESIDING OFFICER. The Senator from Virginia.

Mr. WARNER. Mr. President, I commend my colleague. He has been steadfast throughout this period of the week when we had hearings and attended some of the hearings himself. Throughout the day, he has been very skillful and evenhanded in the way he has helped me and others, the leadership, Senator HELMS, who is going to join us momentarily in handling this floor situation. I thank my colleague.

Mr. WARNER. Our distinguished chairman of the Foreign Relations Committee has joined us. He has been in contact with me frequently through this day.

Mr. BIDEN addressed the Chair.

The PRESIDING OFFICER. The Senator from Delaware.

Mr. BIDEN. While the chairman of the Foreign Relations Committee is assuming his seat, I wish to say to my colleagues, I know of no one else on this side who wishes to speak today. I am anxious to hear what my friend from North Carolina has to say. I will sit here and listen to all of it. And I sincerely am anxious to hear it. But I want my colleagues to know for scheduling purposes, I indicated to Senator KYL I am going to respond specifically to some of the points he raised because—again, I am not being solicitous—I think he is one of the best lawyers in this place. He knows this area very well. I think each of his points warrants a very specific response. But I will attempt to do that on Tuesday when we are back in. So I want to put people on notice, I am prepared to debate the issue if people wish to, but as far as I am concerned, we do not intend on using any more time today, unless for some reason my colleagues conclude I should.

I yield the floor.

Mr. SESSIONS addressed the Chair.

The PRESIDING OFFICER (Mr. WARNER). The Senator from Alabama.

PRIVILEGE OF THE FLOOR

Mr. SESSIONS. Mr. President, I ask unanimous consent that Steve Shope be granted floor privileges in the proceedings today.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. SESSIONS. I want to share a few additional thoughts.

Earlier today I discussed my belief that if the United States is going to be a leader for peace, it needs to be a leader militarily in the world. It has fallen uniquely to be our responsibility, our burden, our role to do that. I think if we fail to do that, history will record that we abdicated a responsibility. That is critically important.

Presiding in the chair is the chairman of the Armed Services Committee. We have had a number of days of hearings—some top-secret, code-word briefings and hearings. Some have been public.

I want to share a few things, as I interpret what occurred in those hearings. It is consistent with the headline as has been cited earlier in the New York Times: "Experts Say Test Ban Could Impair Nuclear Arms Safety." That is the way it was interpreted by a New York Times reporter. That is the way I believe it is fair to be concluded.

The lab Directors were pressed aggressively by Senator LEVIN, one of the finer questioners that I have ever observed in this body. He asked them firmly and consistently: Were they on board? They maneuvered around a bit, but they eventually did say they were on board. But Senator ROBERT BYRD astutely noted they were "uneasy" with those answers. In fact, they indicated they were on board only after a good deal of insistence and debate about

signing on to the CTBT concept. They indicated that they would sign on and be on board, if the six safeguards could be included. These are employees of the executive branch of the United States Government. They work for the President. They know the Secretary of Energy was testifying there at the same time.

The chairman of the committee noted that their testimony was inconsistent with the testimony of the Secretary of Energy at the same hearing on the same day. The Secretary of Energy is a fine person, but he is not a nuclear engineer. He has not been given the responsibility to monitor the safety and security of our weapons. He says they are OK. The President says they are OK. But the experts didn't quite say that. In fact, they said it could impair nuclear arms safety. I think that is important. We do not have one voice about this matter.

They talked about the Stockpile Stewardship Program, and they were not nearly so confident in that program as some would suggest. In fact, it almost seemed, I suggest, that they were saying that the President, in 1993, just unilaterally said: We are not going to test, so they are not doing that. This apparently gave them some belief that they could have some other kind of testing, so that is better than nothing. I may be misinterpreting those comments, but I don't think so. I think they basically said stockpile stewardship was not a guaranteed thing, but that they would do their best with it, as patriotic Americans. They said they could not be sure the Stockpile Stewardship Program would work, and they admitted there would be no way to validate the Stockpile Stewardship Program other than through live-fire tests—tests of explosions, nuclear explosions.

I ask, is this, indeed, in the best interest of the United States to tie our invaluable deterrent responsibility to an undeveloped, untested, and unvalidated simulation regime?

The preamble to the treaty states that cessation of testing is an effective measure of nuclear disarmament. Dr. Robinson, Director of the Sandia Lab, testified that nonnuclear components in today's weapons will ultimately become obsolete and irreproducible—they cannot be reproduced. That is, without testing, our nuclear capability will vanish. If it does, it is a distinct possibility that other states will find the world's situation having changed significantly, and they may decide to determine to expand their own capability. It will, in fact, be, and these words irritate a number of people, but it has a ring of truth to it. It will be a form of unilateral disarmament, we, being the world leader, signing a piece of paper that ultimately leads us to a point where we cannot continue to be the world leader.

We know a test ban can't prevent nations from acquiring nuclear weapons. Tests by India and Pakistan showed

that. The Sandia Lab Director further testified that, "[t]hose who claim that by ending nuclear testing, we will close off the threat of terrorist development and use of nuclear explosives mislead themselves." And Congress should not accept such arguments as a basis for endorsing a test ban treaty.

I hope, Mr. President, we can develop a way to continue to reduce the presence of nuclear weapons. This Congress, this Senate has supported massive reductions in the number of weapons we possess. We have continued to explore other treaties and agreements.

I like limited, bilateral agreements with nations such as Russia or China or England or France, where we know what we are doing and it has an end time. We have an agreement. We have a precise understanding of the benefits and risks involved. These broad treaties, to which we are committing with the whole world of nations, many of whom are not going to comply with them, make me nervous. It is not necessarily good for a great nation to do that. A great nation has to be cautious. A great nation can't blithely go out and start signing up to a bunch of treaties and thinking that it will all work out sometime in the future. It is a serious matter.

I am glad the chairman and others, Senator KYL, Senator HELMS, have taken such a lead in this. I am glad to see Chairman HELMS here. Chairman HELMS has said consistently, this treaty is not good for America. He has refused to endorse it. He opposes it. Now we have had hearings and debate, and a growing number in this Senate are agreeing with him. I don't believe there are votes sufficient to pass it, because I do not believe that it is good for the country. I think the opinion of Senator HELMS on that is being validated daily by the experts, as well as Members of this body.

Mr. President, I thank the chairman for his leadership. I appreciate Senator BIDEN's ability to articulate and to advocate. It makes us all think carefully about what we are doing. I think it has been a good debate. I think we have learned a lot. In the end, I think this Senate will conclude this is not the time to ratify this treaty.

I yield the floor.

The PRESIDING OFFICER. The Senator from Delaware.

Mr. BIDEN. Mr. President, I am going to take about 5 minutes to respond to my friend from Alabama. He may have to catch a plane or something. I hope he will understand that, if he is not on the floor.

First of all, I find it fascinating. I think he may want to amend the record—I am being a bit facetious, a little tongue in cheek—amend the record by suggesting that he has greater faith in headline writers and reporters than he does in the transcript I am about to read.

I don't know whether he has ever been bitten by a headline. We all know headline writers read—and no one

knows this better than my friend from North Carolina—the part of the copy that is given to them, and they get to write the headline they want. Sometimes it bears little resemblance to what happened. I hope we don't put any faith in a headline. I am not suggesting we shouldn't put faith in what is written by reporters sometimes. What was said in this article is accurate, but it is not complete. As my friend from Alabama said, we do not have one voice speaking on this, but we do have one record, one record from the hearing. I have a copy of the record from the hearing conducted in the Armed Services Committee yesterday, page 59. I will read the whole thing. It will take a minute.

Senator LEVIN. Therefore, what you are telling us is that if this safeguard [the Strategic Stockpile Program] and other safeguards are part of this process that you can rely upon, that in your words, Dr. Robinson, you are on board in terms of this treaty; is that correct?

Dr. ROBINSON. I am on board that science-based stockpile stewardship has a much higher chance of success and I will accept it as a substitute.

Going on to page 60.

Dr. ROBINSON. As a substitute for requiring yield tests for certification.

The tests he is referring to are nuclear tests. Then further on down, Dr. Tarter says:

I can only testify to the ability of stockpile stewardship to do the job. It is your job, about the treaty.

Senator LEVIN. Are you able to say that, providing you can rely on safeguard F—

My description: Safeguard F is the safeguard that allows the President to get out of the treaty if the lab Director certifies that he is not able to certify the safety and reliability.

Senator LEVIN. Are you able to say that, providing you can rely on safeguard F and at some point decide that you cannot certify it, that you are willing under that condition to rely on this stewardship program as a substitute for actual testing?

Dr. TARTER. Yes.

Further down, same page:

Dr. BROWN. Senator LEVIN, if the government [the laboratories] provides us with the sustained resources, the answer is yes, and if safeguard F is there, yes.

Now I am not suggesting all else that is quoted is not accurate. But it is useful to have a punchline at the end of the quotes. It may be viewed as tortuous; it may be viewed in any way you want. I don't think my friend from Alabama means that because these renowned scientists happen to work for the Federal Government—they also, by the way, are in the employ, if I am not mistaken, of outside laboratories and industries as well, or at least on loan from them—I hope nobody is suggesting—and I am sure he is not—that they would alter their testimony because the President of the United States or the Secretary of Energy takes a position that is consistent with theirs, and that is why they are taking it.

I know my friend from Virginia will want to respond to this today, or Tues-

day, or whenever he wants to do it. We will have plenty of time. I did not want there to be a hiatus between the comments of my friend from Alabama and my responding. I will conclude, I say to my friend from North Carolina. I think we should be—and believe me, I need this admonition for myself as well—a little careful about some of the words we use, such as “unilateral disarmament.” I don't think anybody is arguing we are unilaterally disarming.

At any rate, I see my friend from Virginia has come down from on high and I assume wants to respond.

I yield the floor.

(Mr. INHOFE assumed the Chair.)

Mr. WARNER. Mr. President, I am anxious to receive the remarks of our distinguished chairman. But I was right there when Senator LEVIN asked the questions. I will put in the RECORD my edification of their replies.

We have to understand, this Stockpile Stewardship Program, SSP, is basically a computer and other adjuncts, scientific devices that we are going to put in place—that is the key, “put in place”—at the minimum, 5 or 6 years from now, but more likely 10 years from now. In the opinion of the Director of Sandia Laboratories, it could be 20 years. That is all in the RECORD in response to my question.

These Directors carefully said: Yes, we are meeting the current milestones in putting together this computer and other high-tech test programs, but we are a long way away. It could be as much as 20 years. So we could go to a period of, at a minimum, 8 to 10 years without any testing of the type that is a substitute for actual testing. Today, the stockpile is safe. Tomorrow, it is credible and safe. But as the years go on—and Senator BYRD used the words, as the years go on—the natural degrading under the law of physics of metallic parts, of chemical parts, and other parts takes place.

Therefore, this hope for SSP, in sum, is almost a dream, but these men conscientiously are working on it day and night. Hopefully, in a period of anywhere from 6, 7, 8, 9, 10, maybe 20 years, it will be on line for that type of database which actual testing will give.

In the meantime, we are going through with part of the SSP program, but not all of it—bits and pieces of it—largely relying on the test data of a bank of information we have in this country developed over the period of 50 years in which we did actual tests.

I thank my colleague.

Mr. BIDEN. Mr. President, I will pursue this more on Tuesday. I respectfully suggest that argument was based on a fallacy, and that is, the Stockpile Stewardship Program will not stay at zero until it is completed. We began this years ago. It is already working. We already use testing methods that do not require nuclear explosions.

The Senator will remember the chart James Schlesinger had with the arrows going up and down, and I quote from Dr. Sig Hecker, the Director of Los Al-

amos in 1997, whom everybody quotes these days, wrote a letter to the Senator from Arizona and said:

... there have been several instances since the cessation of nuclear testing in September 1992, where we have found problems ... for which in the past we would have turned to a nuclear test in the kiloton range to resolve. In the absence of testing, we have used the methodology of [Stockpile Stewardship] to evaluate the problem and suggest fixes if required.

This has included more extensive calculations, non-nuclear laboratory experiments, comparison to previous nuclear test data, and the extensive experience of our designers and engineers. Moreover, our assessment has been checked against the rigors of peer review by the Lawrence Livermore National Laboratory. We have examined several problems of this nature during this year's certification cycle.

At this time, we have sufficient confidence in our solutions to certify the stockpile without a resumption of nuclear testing. If our confidence in the fixes were not sufficiently high, we would not certify the stockpile.

He is no longer the lab Director, but I assume my colleagues all believe him to be an honorable man. When they say testing is not needed at this time—that is, the Directors—I ask my colleagues whether or not they agree with Jim Schlesinger, who said it is not needed at this time and he doubts it will be needed in the future.

Let me explain. We are using data from 1,000 past nuclear tests—as my friend says, from nonnuclear subcritical experiments and from high-tech simulations to understand what is happening and what may happen in the weapons stockpile.

Four facilities that will not be ready until 2005 are—they are called the National Ignition Facilities—a contained firing facility, dual-access radiographic hydrodynamics test facility, and the Atlas Plus power facilities. These facilities—and this is important—are all logical successors to older, less capable facilities. Our scientists are pushing the envelope but are not engaging in flights of fancy. That is why our labs and the Department of Energy are confident the National Ignition Facility will work, even though it has cost overruns. These facilities will serve several purposes and increase knowledge of basic physics of nuclear weapons. That new knowledge will lead to more accurate and precise computer simulations. The facilities can also be used to test the particular weapons problems. That is why I say our weapons will still be tested, even without full-scale nuclear weapons testing.

Another key tool we are developing is this advanced supercomputing accelerated strategic computing initiative, another generation of supercomputers that will be able to synthesize test data from the past, and all of the testing done on weapons components, to provide three-dimensional simulations of all aspects of nuclear weapons and how they react. Already, our scientists and engineers are working with industry and several universities to develop

computers that are capable of running more than 3 trillion operations per second. That is a new record level of computing power, and it gives us new safety.

Our goal, admittedly, over the next 5 years is for those supercomputers to be able to do 100 trillion operations per second. That is not something we need in our stockpile today. In fact, it represents a 100,000-fold increase in today's computational ability, and everybody says today's computational ability is sufficient to guarantee the stockpile. But when our weapons reach their so-called shelf life, then it is going to be needed, and we anticipate needing that sophisticated modeling. No one thinks that sophisticated modeling is needed now.

Finally, I have real questions about my colleagues' concern that the stockpile stewardship cannot work. Our scientists are the best in the world. They know what they are doing. They define scientific challenges that must meet the military performance and reliability standards. After defining these challenges, they believe they can meet them. I believe they know what they are talking about. But I see one problem. The one problem the Stockpile Stewardship Program faces now and in the future is that some may not fund it. That is what our colleagues at the laboratories are talking about.

Let me quote and conclude from a news release released today by the Department of Energy. I will submit it for the RECORD. It is "For Immediate Release," dated October 8, 1999, and is a joint statement by Directors of three nuclear weapons laboratories—I note parenthetically that my guess is they probably read the New York Times article—C. Paul Robinson, Sandia; John C. Browne, Los Alamos; C. Bruce Tarter, Lawrence Livermore National Lab.

I will read only from the fourth paragraph:

While there can never be a guarantee that the stockpile will remain safe and reliable indefinitely without nuclear testing, we have stated that we are confident that a fully supported and sustained stockpile stewardship program will enable us to continue to maintain America's nuclear deterrent without nuclear testing.

Mr. President, I ask unanimous consent that the entire statement be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

[From the DOE News, October 8, 1999]

JOINT STATEMENT BY THREE NUCLEAR WEAPONS LABORATORY DIRECTORS

(C. Paul Robinson, Sandia National Laboratories; John C. Browne, Los Alamos National Laboratory; and C. Bruce Tarter, Lawrence Livermore National Laboratory)

"We, the three nuclear weapons laboratory directors, have been consistent in our view that the stockpile remains safe and reliable today.

"For the last three years, we have advised the Secretaries of Energy and Defense through the formal annual certification

process that the stockpile remains safe and reliable and that there is no need to return to nuclear testing at this time.

"We have just forwarded our fourth set of certification letters to the Energy and Defense Secretaries confirming our judgment that once again the stockpile is safe and reliable without nuclear testing.

"While there can never be a guarantee that the stockpile will remain safe and reliable indefinitely without nuclear testing, we have stated that we are confident that a fully supported and sustained stockpile stewardship program will enable us to continue to maintain America's nuclear deterrent without nuclear testing.

"If that turns out not to be the case, Safeguard F—which is a condition for entry into the Test Ban Treaty by the U.S.—provides for the President, in consultation with the Congress, to withdraw from the Treaty under the standard "supreme national interest" clause in order to conduct whatever testing might be required."

Mr. BIDEN. Mr. President, let me conclude by pointing out that I find it kind of interesting. The very people who stand up here and say, as I happen to believe, that they have confidence that our scientists in the future are going to be able to shoot out of the sky like a bullet meeting a bullet incoming nuclear weapons over the ocean traveling at multithousand miles per hour and do it with certainty and accuracy—they have faith in the ability of that to occur, but they don't have faith in the ability of our scientists at the three laboratories, who say they are well on their way to doing that, to be able to say what they need.

I find it kind of interesting. I must admit it is a double-edged sword. I find my Democratic colleagues who do not support any national defense initiative—because they say this star wars notion can't work, it is too far out—I do not know how they come and rely so easily upon the likelihood that a \$45 billion investment is going to guarantee these supercomputers will function to the degree they are needed to when these weapons reach their shelf life. But let's be fair. You can't have it both ways. I would respectfully submit that the ability to guarantee MIRV nuclear warheads fired in the hundreds or the thousands at the United States could be blown out of the sky with impunity by a missile defense initiative on our part is a mildly greater scientific feat than what the stockpile requires.

As someone said: "The faith of our father"—"the faith of our father"—has always been that if we put our mind to it, if we invest the money, we have the intelligence, the ingenuity, and the know-how to get it done. I would respectfully suggest our three present laboratory Directors and all the doubts they express are primarily related to whether or not Safeguard F and funding of \$45 billion for the stockpile would be forthcoming.

I yield the floor.

The PRESIDING OFFICER. The Senator from Virginia.

Mr. WARNER. Mr. President, the best deterrent from keeping those

thousands of missiles coming in is precisely what we have had these 50-plus years—a credible safe deterrent in our stockpile. And the person whose finger is on the button firing those missiles knows that.

I am reading from yesterday's proceedings of the Senate Armed Services Committee on page 50 where the chairman, myself, asked the following questions. This is one of the laboratory Directors testifying:

"We moved this year toward the development of the SSP, and last year toward putting in place the supercomputers on a path that we think we need to have. We are on a path that by 2004 we will have a supercomputer in place that begins"—begins—"to get us into the realm of what we need to do this job"—namely certifying the stockpiling.

"The issue that I think you are trying to address"—this is the hardest point I think as a scientist—"is that we cannot predict that by such and such a date we will know everything we need to know."

"It is an evolving process. Each year we learn something else."

Bit by bit, year by year.

I then asked: "My time is running out."

And it is running out. We want to control time.

"Give us your best estimate, doctor," Senator WARNER said.

"Dr. Brown: I think we are going to be in the best position sometime between 2005 and 2010."

"Chairman WARNER: Dr. Tarter."

"Dr. Tarter: I agree with Dr. Brown."

"Dr. Robinson: My guess is somewhere in the 10 years hence to 20 years hence period."

There it is, short answers directed to the question.

Mr. BIDEN. Would my friend yield for a question? From what page of the record was he reading?

Mr. WARNER. Page 50 of the official transcript of the Armed Services Committee.

Mr. BIDEN. I don't doubt it. I read from page 59 to get the significance?

Do you get the significance?

That was stated on 50 and 51 and 52. This is 59. After all is said and done, the question was asked: Do you believe with the safeguards you can rely upon the stockpile, the strategic stockpile, approach as opposed to nuclear testing?

They said yes.

It follows. Page 59 and 60, I am reading from. Maybe there is something after page 61 in the testimony that would undermine what I have just said. I respectfully suggest I am unaware of it if it is. I stand ready to hear it if it has been.

It is one of those deals, folks. You have to go to the end. It "ain't over until the fat lady sings." It ain't over until you read the whole transcript. The last thing stated was: We have confidence.

Then, after the testimony, after the testimony and after the New York

Times article, the Department of Energy and in the name of the three scientists quoted—and I will read it again.

"While there can be no guarantee"—the point he is making on page 50—"that the stockpile remains safe and reliable indefinitely without nuclear testing, we have stated that we are confident that a fully supported and sustained stockpile stewardship program will enable us to continue to maintain America's nuclear deterrent without nuclear testing."

I yield the floor.

Mr. WARNER. Mr. President, it is 117 pages. I sat there for 5 hours 10 minutes. How well I know the various parts of this system. I was weary after 3 days of testimony. But it is all here for all Senators to read. I invite them to spend as much time as they can on the record.

It comes down to honest men, well-intentioned individuals—men and women on both sides of the issue—cannot agree, and should we move forward with a treaty that will vitally affect our security interests, unless the preponderance of the evidence is overwhelming, and beyond a reasonable doubt? Give us the certainty to make that step.

I yield the floor.

The PRESIDING OFFICER (Mr. WARNER). The Senator from Oklahoma is recognized.

Mr. INHOFE. Mr. President, I have a few brief comments to make in response to the very eloquent remarks from the Senator from West Virginia, in which I thought he covered it quite well. He had a concern for whether the intelligence estimate was going to be forthcoming.

I would suggest, and get into the RECORD at this time, that back in December of 1995 we were waiting for the NEI report to come out. And it came out.

That report said we would not have to defend ourselves in the United States of America for a limited attack in terms of—the discussion, of course, was the national missile defense—until approximately 15 years, not any less than 15 years.

We found out later that was actually imminent at that time.

I can recall so well writing the Chairman and Joint Chiefs of Staff, General Shelton, on the 24th of August of this last year—1998—and asking him to be specific in terms of taking the national intelligence estimate and all the information that he could garner and tell me at approximately what date North Korea would be able to fire a missile, a multiple-stage rocket. He came back and said it would be more than 5 years.

Seven days later—on the 31st of August, 1998—they fired one.

I think we all know right now that they have another type of missile that can reach Washington, DC, from any place in the world in about 35 minutes, and we don't have any defense against that.

I don't think, if we are going to rely on the NEI information, we are relying

on something that is going to be in the best interests of defending our country.

The Senator from West Virginia also talked about the ratification process and about needing more time.

We hear over and over again from every single person who stood up to defend the CTBT we need more time, we have to have more time. Yet if one reads what those same individuals are saying, the President of the United States said on the 16th of May, 1998:

Now it's all the more important that the Senate act quickly, this year, so we can increase the pressure on, and isolation of, other nations that may be considering their own nuclear test explosions.

Also the President said:

... I ask the Senate to approve it [CTBT] this year.

That was 1998—last year; here it is 1999.

Vice President AL GORE said the same thing:

The U.S. Congress should act now to ratify the Comprehensive Test Ban Treaty.

That is July of 1998.

Secretary Albright said:

We need this Treaty now.

That was on September 23, a few days ago, this year.

She said, further:

For American leadership, for our future, the time has come to ratify CTBT—this year, this session, now.

I could go on and on; the leaders have said we have to do it now.

As far as taking up this treaty, knowing what is in it, the treaty has been there for 2 years. We have all had an opportunity. Have I read the entire treaty? No, but I read the areas that concern me on verification, on zero-yield thresholds, things where I know we cannot verify what would be done. Verification is not there.

I remind Members, every Senator, including the illustrious Senator from Delaware, had the opportunity to object to the unanimous consent request propounded and agreed to a few days ago calling for the vote to take place after the 14 hours of debate which should be some time on Tuesday or Wednesday.

The only Senator from that side who is not openly supporting this yet is the Senator from West Virginia who said, by his own mistake, he was not able to get down in time to object to the unanimous consent request.

We had an opportunity for every Senator to have slowed this train down so they wouldn't have to vote on it and they elected not to do it.

I think it is very important we all keep that in mind. This is significant. It is something we have reviewed over a long period of time. It is something we understand. We have heard the professional testimony. We have attended many meetings. I along with the Presiding Officer, have sat through hours of committee meetings and subcommittee meetings that I have held in my committee on this very subject. I think we understand it and I agree

with the statements of all of those, including the President, Vice President, and the Secretary of State, who I quoted. We need to do it now.

I will be here to object to any unanimous consent that would in some way vitiate the vote that we believe should be imminent next week.

I yield the floor.

Mr. BIDEN. Mr. President I will take 1 minute.

The President doesn't need any more time; he read it and negotiated it. I don't need any more time; I spent over 100 hours on that. It is my job on the committee of responsibility. The Senator presiding doesn't need more time; he spent hundreds of hours. The Senator from Oklahoma doesn't need more time because he spent hundreds of hours on it. I defy anyone to find five other Members of the Senate who have spent as much time.

Usually what happens is we take on the responsibility to inform our colleagues based on our committees because we have more expertise when assigned the job. When it is tax policy, I don't know what the Tax Code says on major changes, but I rely upon the committee headed on the Democratic side by my friend from New York to tell me what is in it from spending hundreds of hours going through the detail.

This is a different way to do business. I don't ever remember Members having voted on a treaty without there being a significant report from the relevant committees on the floor.

The President doesn't need any more time. I don't need any more time. Senator BYRD says he needs more time, and I don't know anybody more conscientious than Senator BYRD. But the reason for more time is there haven't been any hearings.

I yield the floor.

The PRESIDING OFFICER. The chairman of the Senate Foreign Affairs Committee, the Senator from North Carolina.

Mr. HELMS. Mr. President, I assure my friend from Delaware, the ranking Democrat on the Foreign Affairs Committee, I enjoy hearing him and hearing him and hearing him.

I guess it is sort of similar to what the President said in one of his strong moments not long ago: I guess it depends on what the definition of "is" is.

This afternoon in Canada, President Clinton held a press conference in which he explicitly rejected the offer I made along with a number of other Republican Senators that the Senate would put off a vote on the CTBT if the President requested in writing (a) that the treaty be withdrawn and (b) that it not be considered for the duration of his presidency.

Considering that the President acknowledged he does not have the votes to ratify the treaty, this seemed to many of us a generous offer which the President rejected with a strange rhetorical outburst.

When asked about our offer today, he said:

They want me to give them a letter to cover the political decision they have made that does severe damage to the interest of the United States and the interest of non-proliferation in the world? I don't think so.

The Mr. President further suggested, strangely and absurdly, that the reason we made the offer in the first place was because, as he put it, Republicans are afraid to go though with a vote. He said:

... they want to [kill the treaty] and don't want to get up and defend it before the American people in an election year. ... [They think] that some letter from me will somehow obscure [that fact] ...

Mr. President, among those who are urging that the Senate kill this dangerous treaty are: six former Secretaries of Defense, four former National Security Advisors, four former Directors of Central Intelligence, and two former Chairmen of the Joint Chiefs of Staff.

Yet, Mr. Clinton suggests that Republicans are afraid to vote? The fact is, the President and his advisors have done everything possible to discourage a solution.

Let's make it clear so the President can get his confusing rhetoric straightened out: Since he has rejected our offer, I will object, along with many of my Republican colleagues, to any effort to put off next week's vote on the Comprehensive Test Ban Treaty.

This is a dangerous treaty, contrary to the national security interests of the American people. The Senate should go on record as planned: The Senate should vote this treaty down.

Mr. President, may I make an inquiry how much time has expired on each side since this morning when the Senate convened?

The PRESIDING OFFICER. The Chair advises the distinguished chairman of a remarkable coincidence: The opponents have used 204 minutes, the proponents, 208 minutes.

Mr. HELMS. Mr. President, pursuant to the unanimous-consent agreement by the Senate, consideration has begun regarding an arms control treaty that has been the longest-sought, hardest-fought item on the unilateral nuclear disarmament agenda. Strangely, the Clinton administration has used every fanciful reasoning in its attempt to portray the Comprehensive Test Ban Treaty (CTBT) as an agreement long pursued by every administration since President Eisenhower, a claim that is bewilderingly untrue. Even the administration's own negotiator acknowledged that the administration's claims are "hyperbole."

You see, Mr. President, the truth of the matter is that not one administration (prior to the current one) ever proposed a zero-yield, unverifiable, permanent duration test ban. Indeed, as Ambassador Ledogar admitted, even the Clinton administration itself did not want such a treaty initially.

Someone has commented that the CTBT now before the Senate is the clearest case of "parchment worship"

ever seen. It was neither carefully negotiated nor well-thought through. It does not even define exactly what it bans.

Instead, the CTBT is the product of a mad scramble to: (1) Create an arms control "legacy" for the Clinton-Gore administration; or (2) provide an excuse for this administration's lack of any nonproliferation policy; or (3) obscure the fact that this administration presided over the collapse of the single-most significant reduction in nuclear weapons with Russia ever negotiated—the START II Treaty—which would have eliminated all MIRVed ICBMs and the SS-18 missile. (The likelihood is that all three played a major role in the administration's decision to try to ram through this Senate this unwise and dangerous treaty.)

Unfortunately, in the race to fashion a last-minute rickety "legacy", the Clinton administration abandoned longstanding United States policy on nuclear testing and signed up to a "zero yield," unverifiable, permanent duration test ban. As several of us have noted, for a number of reasons relating to verification and U.S. nuclear weapons requirements, this is something to which no other administration ever agreed. For instance, President Eisenhower—who has been repeatedly and mistakenly blamed with authorship of the CTBT—insisted that nuclear tests with a seismic magnitude of less than 4.75 be permitted.

The reason that the United States historically has refused to sign on to a zero yield test ban is that five problems are created by such a prohibition. First, confidence in the safety and the reliability of the weapons stockpile will erode. Second, warheads cannot be "remanufactured" to capitalize upon modern technologies. Third, no further designs or capabilities can be added to the nuclear stockpile. Fourth, critical infrastructure and hardware cannot be thoroughly "hardened" against nuclear weapons effects. Fifth, the U.S. can have no confidence that other countries are abiding by the CTBT because a zero yield ban cannot be verified.

By preventing the United States from testing, the CTBT will erode our ability to discover and fix problems with the nuclear stockpile and to make safety improvements. Confidence that the weapons will perform as needed will erode. Already, leaders of our own nuclear weapons design laboratories have stated that problems with the stockpile have arisen that formerly would have prompted nuclear tests.

Further, several of the weapons are not as safe as they could be. As this chart demonstrates, only one warhead of the nine in the stockpile is equipped with all of the modern surety features available. One weapon—the W62—does not have any safety features at all, and three of the weapons—the W76, W78, and W88—are only equipped with "enhanced detonator safety" measures.

Mr. President, several important safety improvements cannot be made

to these weapons unless subsequent nuclear testing is allowed to ensure that modified devices will function properly with these changes. I will underscore that for Senators. The CTBT will prevent the United States from making critical safety improvements to its warheads. I, for one, agree with the Governor of North Dakota who wrote to me opposing the CTBT stating:

As a governor of a state that hosts a sizable percentage of our nation's nuclear weapons, I have an obligation to the people of North Dakota to ensure that these warheads are as safe and reliable as they can be made. It troubles me that several U.S. warheads do not contain the most modern safety features available, such as fire-resistant pits and insensitive high explosives. Yet these warheads cannot capitalize upon such improvements without nuclear testing.

I hope Senators will understand that the CTBT will gradually undermine the safety of the U.S. deterrent by precluding the incorporation of modern safety features.

Moreover, nuclear testing is essential if the United States is to discover and fix problems with the stockpile. These problems usually are associated with aging. The materials and components of weapons can degrade in unpredictable ways and can cause the weapon to fail. Many weapons believed to be reliable and thoroughly tested nevertheless developed problems which were only discovered, and could only be fixed, through nuclear testing. In fact, one-third of all the weapon designs placed in the stockpile since 1958 have required and received post-deployment nuclear tests to resolve problems.

In three quarters of these cases, the problems were identified and assessed only as a result of nuclear testing, and only could be fixed through testing.

The United States has chosen to remanufacture aging weapons in the enduring stockpile rather than designing and building new ones. This presents problems because many of the materials and processes used in producing the original weapon are no longer available. New materials and processes need to be substituted, but they can only be validated to assure that the remanufactured weapon works as intended through nuclear testing.

Exact replication, especially of older systems, is impossible without testing. In part, this is because documentation has never been sufficiently exact to ensure replication. Nuclear testing is the most important step in product certification; it provides the data for valid certification. As a case in point, the United States attempted to remanufacture both the W52 and W68 warheads on the basis of simulations. However, when actually tested, both weapons had a measured yield well short of what test-experienced weapons designers predicted. This is a lesson that the administration, in supporting the CTBT, seems willing to forget.

The CTBT also will prevent the United States from developing new weapons to counter new technological advances by adversaries. Nuclear testing is essential to such modernization.

Without it, the nuclear triad will become obsolete.

I fail to see the logic behind the argument that the United States has no need to modernize its deterrent if Russia, China, and others are similarly constrained. Such a claim just won't fly; in fact, given the demonstrable inability to verify a total test ban, I am persuaded that such assertions are founded upon the mistaken presumption that nuclear weapons modernization is driven by the evolution of other nuclear deterrents. Historically, this simply has not been the case.

Indeed, nuclear weapons modernization is generally driven either by new mission requirements, or by non-nuclear technological evolution in defensive systems. For instance, during the cold war, advances in air defense and anti-submarine warfare created needs for new weapons. Nuclear testing was needed to create the B83 bomb, a gravity bomb—a "laydown weapon" because it enabled the B-1B to drop its payload, at low altitude and high speed, and thereby escape the resulting explosion.

This weapon was needed in response to advances in air defense capability. For the same reason, the U.S. developed the nuclear air-launched cruise missile, which allows U.S. bombers to fulfill their mission outside of air defense ranges.

Nuclear testing was needed for the Trident II missile's warheads, W76 and W88. Testing was essential to optimize the system, giving the missile, and thus the submarine as well, increased striking range. This was needed in response to advances in anti-submarine warfare. Without the ability to test and modernize, the airmen and sailors aboard our bombers and submarines will be put at increased risk as they try to perform their duties with obsolete technology. Senators should think carefully about the implications of the CTBT, and the risk it poses—not just to the nuclear weapons themselves—but to our servicemen.

Our clear, future need facing the United States is the requirement to develop new or modified warheads to respond to developments in missile defense—particularly in the area of directed energy. It would be impossible to adapt to such developments under a complete test ban.

Further, without the ability to design new weapons, such as a warhead optimized to kill biological plagues or to destroy deeply-buried targets, the U.S. will be unable to respond to serious emerging threats to our security. I could not agree more with one of the former Directors of Lawrence Livermore National Laboratory, Dr. Roger Batzel, who warned that; "A nuclear arsenal which is unable to keep pace with a changing security environment is unlikely, in the long run, to prove much of a deterrent."

Fourth, the CTBT would make the United States increasingly vulnerable to foreign nuclear programs. Critical

systems such as satellites cannot be hardened and thoroughly protected against electro-magnetic pulse attack without nuclear testing. Computers cannot simulate a nuclear environment. Neither can controlled radiation sources. It takes a nuclear explosion to create the heat and complex interplay of radiation needed to evaluate the resistance of systems to these nuclear effects.

Historically, the United States often has been surprised by how systems which seemingly performed as needed during non-nuclear simulations then failed to function properly in an actual nuclear environment. Indeed, surprises have been found in the vulnerability to nuclear effects of all U.S. strategic nuclear systems except the Minuteman II. The CTBT will allow countries to exploit a growing U.S. vulnerability brought about by an increasing reliance on high-tech weaponry and a decision not to test in order to harden systems.

Finally, a "zero yield" test ban is not verifiable. While the exact thresholds are classified, it is commonly understood that the United States cannot detect nuclear explosions below a few kilotons of yield. Countries are able to resort to a number of techniques, ranging from "unattended detonations" to seismic decoupling, that will enable them to conduct significant nuclear explosions with little chance of being detected.

The proposed verification regime under the CTBT offers scant reassurance in this matter. The seismic detection thresholds of the International Monitoring System are sufficiently high that a large amount of clandestine testing could occur without fear of seismic detection. Moreover, the on-site inspection regime is riddled with loopholes and deficiencies.

The bottom line is that if the Senate were to make the mistake of approving this treaty, the United States would scrupulously adhere to the CTBT, thereby losing confidence in its nuclear deterrent. Other nations, however, most likely would violate the treaty and escape detection, building new weapons to capitalize upon the U.S. deficiencies and vulnerabilities created by the CTBT. For these reasons, I oppose the CTBT and I am gratified that more and more Senators are making clear their opposition to ratification of an unwise, even dangerous, proposal to deprive the American people of the protection they need and deserve.

Mr. President, for just a moment I suggest the absence of a quorum and then I will resume.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. HELMS. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. HELMS. I thank the Chair.

Mr. President, I ask unanimous consent that it be in order for me to suggest the absence of a quorum and the time be divided equally from both sides.

The PRESIDING OFFICER. Is there objection?

Without objection, it is so ordered.

Mr. MOYNIHAN addressed the Chair.

The PRESIDING OFFICER. The Chair recognizes the senior Senator from New York.

Mr. MOYNIHAN. Mr. President, I rise simply to express the thanks of this Senator to the eminent chairman of the Committee on Foreign Relations for the careful discourse he has presented to us, for the facts, they are complex. No one understands complexity better than he or is more willing to live with it. If we do not come to the same conclusions, it is not for lack of respect and, indeed, a reverence.

Mr. HELMS. Mr. President, I do thank my friend from New York—our friend from New York—whom we will sorely miss before very long.

I thank the Senator and suggest the absence of a quorum.

The PRESIDING OFFICER. Hearing no objection to the unanimous consent request from the Senator from North Carolina, without objection, it is so ordered. The clerk will call the roll.

The bill clerk proceeded to call the roll.

Mr. MURKOWSKI. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER (Mr. HELMS). Without objection, it is so ordered.

Mr. MURKOWSKI. Mr. President, the Senate will soon exercise its constitutional duty of "advice and consent" for international treaties. This is a solemn task. And the treaty before us, the Comprehensive Test Ban Treaty or "CTBT," relates to an issue of utmost importance, the proliferation of nuclear weapons.

As I have evaluated this treaty, I have kept one question first and foremost in my mind: Will ratification of this treaty by the United States serve to protect the national security of the United States? And after careful consideration, my position is that the CTBT weakens the national security of the United States, and I will therefore oppose ratification.

Although I support the lofty goals of the Test Ban Treaty—preventing the spread of nuclear weapons—I think only the good guys will play by the rules. Test ban advocates argue that setting a good example will lead others to play by the rules. The United States has not tested a bomb since 1992, but India and Pakistan went ahead with testing bombs, despite U.S. sanctions and condemnation.

Test Ban advocates also argue that the threat of sanctions will keep countries in line. As my colleagues will recall, North Korea violated the Nuclear Non-Proliferation Treaty—in fact, are still violating the NPT—and the Clinton Administration has rewarded the

DPRK with aid, and more recently, with the removal of sanctions. I suspect the same pattern if rogue nations like North Korea even ratify the CTBT.

But even more fundamentally, I believe this zero-yield treaty of unlimited duration fundamentally threatens the United States' nuclear deterrent by preventing nuclear testing essential to maintaining the safety and reliability of our nuclear stockpile. Our nuclear weapons are the most sophisticated designs in the world, yet over time, the nuclear materials and high explosives triggers deteriorate, and we lack the experience in predicting the effects of these changes.

According to expert testimony, one-third of all weapons designs introduced into the nuclear weapons stockpile since 1985 have required and received post-deployment nuclear tests to resolve problems. In three-fourths of these cases, the problems were discovered only because of on-going nuclear tests. In each case, the weapons were thought to be reliable and thoroughly tested.

How confident can we be in the reliability of our nuclear stockpile if we are unable to test these weapons to determine the degradation effects of aging? If we cannot be confident in our own weapons' effectiveness, what do you suppose other nations will conclude? The use of nuclear weapons as a deterrent is only effective when other parties believe in their capability as well.

Although the Stockpile Stewardship Program should be pursued, we must remember that the Program is in its infancy. Deciding in 1999 to rely on an untested program that will be operational in 2010 is reckless. In the future, I hope that nuclear tests can be replaced by computer simulations and laboratory-based experiments. But I am not willing to bet my grandchildren's security on it.

In light of hearings this past year before the Energy and Natural Resources Committee on Chinese espionage allegations, I also am not comfortable placing the results of our nuclear testing in the memory banks of the National Labs' computers which are vulnerable to espionage or sabotage.

Finally, I would like to address the problem of verifying other nations' compliance with the Comprehensive Test Ban Treaty. Recent reports from the intelligence community indicate that we are unable to monitor low-level nuclear tests precisely enough to distinguish between a conventional explosion, a low-level nuclear test, or even natural seismic activity. The United States cannot now, and may not in the foreseeable future, be able to confidently detect and identify militarily significant nuclear tests of one kiloton or less. That is roughly 500 times the size of the blast which destroyed the Murrah Building in Oklahoma City.

Twice last month Russia carried out what might have been nuclear explo-

sions at its Novaya Zemlya testing site in the Arctic. It was reported that U.S. surveillance satellites have repeatedly observed the kind of activity that usually precedes and follows a low-level nuclear test. Yet, data from the CIA's seismic sensors and other monitoring equipment were reportedly insufficient to reach a firm conclusion as to the true nature of the explosions. If it is not possible to confirm tests such as these, how are we going to verify that countries such as Russia and China are complying with the Comprehensive Test Ban Treaty?

Mr. President, this Treaty is not in the national interest and I urge my colleagues to reject its ratification.

Mr. LUGAR. Mr. President, the Senate has begun consideration of the Comprehensive Test Ban Treaty. I regret that the Senate is taking up the treaty in an abrupt and truncated manner that is so highly politicized. Admittedly, the CTBT is not a new subject for the Senate. Those of us who over the years have sat on the Foreign Relations, Armed Services, or Intelligence Committees are familiar with it. The Senate has held hearings and briefings on the treaty in the past.

But for a treaty of this complexity and importance a more sustained and focused effort is important. Senators must have a sufficient opportunity to examine the treaty in detail, ask questions of our military and the administration, consider the possible implications, and debate at length in committee and on the floor. Under the current agreement, a process that normally would take many months has been reduced to a few days. Many Senators know little about this treaty. Even for those of us on national security committees, this has been an issue floating on the periphery of our concerns.

Presidential leadership has been almost entirely absent on the issue. Despite having several years to make a case for ratification, the administration has declined to initiate the type of advocacy campaign that should accompany any treaty of this magnitude.

Nevertheless, the Senate has adopted an agreement on procedure. So long as that agreement remains in force, Senators must move forward as best they can to express their views and reach informed conclusions about the treaty.

In anticipation of the general debate, I will state my reasons for opposing ratification of the CTBT.

The goal of the CTBT is to ban all nuclear explosions worldwide: I do not believe it can succeed. I have little confidence that the verification and enforcement provisions will dissuade other nations from nuclear testing. Furthermore, I am concerned about our country's ability to maintain the integrity and safety of our own nuclear arsenal under the conditions of the treaty.

I am a strong advocate of effective and verifiable arms control agreements. As a former Vice-Chairman of

the Senate Arms Control Observer Group and a member of the Foreign Relations Committee, I have had the privilege of managing Senate consideration of many arms control treaties and agreements.

I fought for Senate consent to ratification of the INF Treaty, which banned intermediate range nuclear weapons in Europe; the Conventional Forces in Europe Treaty, which created limits on the number of tanks, helicopters, and armored personnel carriers in Europe; the START I Treaty, which limited the United States and the Soviet Union to 6,500 nuclear weapons; the START II Treaty, which limited the U.S. and the former Soviet Union to 3,500 nuclear weapons; and the Chemical Weapons Convention, which outlawed poison gas.

These treaties, while not ensuring U.S. security, have made us safer. They have greatly reduced the amount of weaponry threatening the United States, provided extensive verification measures, and served as a powerful statement of the intent of the United States to curtail the spread of weapons of mass destruction.

I understand the impulse of the proponents of the CTBT to express U.S. leadership in another area of arms control. Inevitably, arms control treaties are accompanied by idealistic principles that envision a future in which international norms prevail over the threat of conflict between nations. However, while affirming our desire for international peace and stability, the U.S. Senate is charged with the constitutional responsibility of making hard judgments about the likely outcomes of treaties. This requires that we examine the treaties in close detail and calculate the consequences of ratification for the present and the future. Viewed in this context, I cannot support the treaty's ratification.

I do not believe that the CTBT is of the same caliber as the arms control treaties that have come before the Senate in recent decades. Its usefulness to the goal of non-proliferation is highly questionable. Its likely ineffectuality will risk undermining support and confidence in the concept of multi-lateral arms control. Even as a symbolic statement of our desire for a safer world, it is problematic because it would exacerbate risks and uncertainties related to the safety of our nuclear stockpile.

The United States must maintain a reliable nuclear deterrent for the foreseeable future. Although the cold war is over, significant threats to our country still exist. At present our nuclear capability provides a deterrent that is crucial to the safety of the American people and is relied upon as a safety umbrella by most countries around the world. One of the most critical issues under the CTBT would be that of ensuring the safety and reliability of our nuclear weapons stockpile without testing. The safe maintenance and storage of these weapons is a crucial concern. We cannot allow them to fall

into disrepair or permit their safety to be called into question.

The Administration has proposed an ambitious program that would verify the safety and reliability of our weapons through computer modeling and simulations. Unfortunately, the jury is still out on the Stockpile Stewardship Program. The last nine years have seen improvements, but the bottom line is that the Senate is being asked to trust the security of our country to a program that is unproven and unlikely to be fully operational until perhaps 2010. I believe a National Journal article, by James Kitfield, summed it up best by quoting a nuclear scientist who likens the challenge of maintaining the viability of our stockpile without testing to "walking an obstacle course in the dark when your last glimpse of light was a flash of lightning back in 1992."

The most likely problems facing our stockpile are a result of aging. This is a threat because nuclear materials and components degrade in unpredictable ways, in some cases causing weapons to fail. This is compounded by the fact that the U.S. currently has the oldest inventory in the history of our nuclear weapons programs.

Over the last forty years, a large percentage of the weapon designs in our stockpile have required post-deployment tests to resolve problems. Without these tests, not only would the problems have remained undetected, but they also would have gone unrepaired.

The Congressional Research Service reported last year that: "A problem with one warhead type can affect hundreds of thousands of individually deployed warheads; with only 9 types of warheads expected to be in the stockpile in 2000, compared to 30 in 1985, a single problem could affect a large fraction of the U.S. nuclear force." If we are to put our faith in a program other than testing to ensure the safety and reliability of our nuclear deterrent and thus our security, we must have complete faith in its efficacy. The Stockpile Stewardship Program falls well short of that standard.

The United States has chosen to remanufacture our aging stockpile rather than creating and building new weapon designs. This could be a potential problem because many of the components and procedures used in original weapon designs no longer exist. New production procedures need to be developed and substituted for the originals, but we must ensure that the remanufactured weapons will work as designed.

I am concerned further by the fact that some of the weapons in our arsenal are not as safe as we could make them. Of the nine weapon designs currently in our arsenal, only one employs all of the most modern safety and security measures. Our nuclear weapons laboratories are unable to provide the American people with these protections because of the inability of the Stockpile Stewardship Program to completely mimic testing.

At present, I am not convinced the Stockpile Stewardship Program will permit our experts to maintain a credible deterrent in the absence of testing. Without a complete, effective, and proven Stockpile Stewardship program, the CTBT could erode our ability to discover and fix problems with the nuclear stockpile and to make safety improvements.

In fact, the most important debate on this issue may be an honest discussion of whether we should commence limited testing and continue such a program with consistency and certainty.

President Reagan's words "trust but verify" remain an important measuring stick of whether a treaty serves the national security interests of the United States. The U.S. must be confident of its ability to detect cheating among member states. While the exact thresholds are classified, it is commonly understood that the United States cannot detect nuclear explosions below a few kilotons of yield. The Treaty's verification regime, which includes an international monitoring system and on-site inspections, was designed to fill the gaps in our national technical means. Unfortunately, the CTBT's verification regime will not be up to that task even if it is ever fully deployed.

Advances in mining technologies have enabled nations to smother nuclear tests, allowing them to conduct tests with little chance of being detected. Similarly, countries can utilize existing geologic formations to decouple their nuclear tests, thereby dramatically reducing the seismic signal produced and rendering the test undetectable. A recent Washington Post article points out that part of the problem of detecting suspected Russian tests at Novaya Zemlya is that the incidents take place in a large granite cave that has proven effective in muffling tests.

The verification regime is further bedeviled by the lack of a common definition of a nuclear test. Russia believes hydro-nuclear activities and sub-critical experiments are permitted under the treaty. The U.S. believes sub-critical experiments are permitted but hydro-nuclear tests are not. Other states believe both are illegal. A common understanding or definition of what is and what is not permitted under the treaty has not been established.

Proponents point out that if the U.S. needs additional evidence to detect violations, on-site inspections can be requested. Unfortunately, the CTBT will utilize a red-light inspection process. Requests for on-site inspections must be approved by at least 30 affirmative votes of members of the Treaty's 51-member Executive Council. In other words, if the United States accused another country of carrying out a nuclear test, we could only get an inspection if 29 other nations concurred with our request. In addition, each country can

declare a 50 square kilometer area of its territory as off limits to any inspections that are approved.

The CTBT stands in stark contrast to the Chemical Weapons Convention in the area of verifiability. Whereas the CTBT requires an affirmative vote of the Executive Council for an inspection to be approved, the CWC requires an affirmative vote to stop an inspection from proceeding. Furthermore, the CWC did not exclude large tracts of land from the inspection regime, as does the CTBT.

The CTBT's verification regime seems to be the embodiment of everything the United States has been fighting against in the UNSCOM inspection process in Iraq. We have rejected Iraq's position of choosing and approving the national origin of inspectors. In addition, the 50 square kilometer inspection-free zones could become analogous to the controversy over the inspections of Iraqi presidential palaces. The UNSCOM experience is one that is best not repeated under a CTBT.

Let me turn to some enforcement concerns. Even if the United States were successful in utilizing the laborious verification regime and non-compliance was detected, the Treaty is almost powerless to respond. This treaty simply has no teeth. Arms control advocates need to reflect on the possible damage to the concept of arms control if we embrace a treaty that comes to be perceived as ineffectual. Arms control based only on a symbolic purpose can breed cynicism in the process and undercut for more substantive and proven arms control measures.

The CTBT's answer to illegal testing is the possible implementation of sanctions. It is clear that this will not prove particularly compelling in the decision-making processes of foreign states intent on building nuclear weapons. For those countries seeking nuclear weapons, the perceived benefits in international stature and deterrence generally far outweigh the concern about sanctions that could be brought to bear by the international community.

Further, recent experience has demonstrated that enforcing effective multilateral sanctions against a country is extraordinarily difficult. Currently, the United States is struggling to maintain multilateral sanctions on Iraq, a country that openly seeks weapons of mass destruction and blatantly invaded and looted a neighboring nation, among other transgressions. If it is difficult to maintain the international will behind sanctions on an outlaw nation, how would we enforce sanctions against more responsible nations of greater commercial importance like India and Pakistan?

In particularly grave cases, the CTBT Executive Council can bring the issue to the attention of the United Nations. Unfortunately, this too would most likely prove ineffective, given that permanent members of the Security Council could veto any efforts to punish

CTBT violators. Chances of a better result in the General Assembly are remote at best.

I believe the enforcement mechanisms of the CTBT provide little reason for countries to forego nuclear testing. Some of my friends respond to this charge by pointing out that even if the enforcement provisions of the treaty are ineffective, the treaty will impose new international norms for behavior. In this case, we have observed that "norms" have not been persuasive for North Korea, Iraq, Iran, India, and Pakistan, the very countries whose actions we seek to influence through a CTBT.

If a country breaks the international norm embodied in the CTBT, that country has already broken the norm associated with the Non-Proliferation Treaty (NPT). Countries other than the recognized nuclear powers who attempt to test a weapon must first manufacture or obtain a weapon, which would constitute a violation of the NPT. I fail to see how an additional norm will deter a motivated nation from developing nuclear weapons after violating the longstanding norm of the NPT.

On Tuesday the Senate is scheduled to vote on the ratification of the CTBT. If this vote takes place, I believe the treaty should be defeated. The Administration has failed to make a case on why this treaty is in our national security interests.

The Senate is being asked to rely on an unfinished and unproven Stockpile Stewardship Program. This program might meet our needs in the future, but as yet, it is not close to doing so. The treaty is flawed with an ineffective verification regime and a practically nonexistent enforcement process.

For these reasons, I will vote against ratification of the CTBT.

Mr. DASCHLE. Mr. President, today the Senate formally begins consideration of whether to ratify the Comprehensive Nuclear Test Ban Treaty, CTBT. Each party to this treaty pledges not to carry out any nuclear weapons tests and to refrain from helping others to carry out such tests. CTBT has been signed by over 150 nations, 51 of which have already ratified the treaty. The question before the Senate now is whether we should join this group in an international effort to limit the spread of nuclear weapons.

Although I will have more extensive remarks on the substance of the treaty shortly before the Senate votes, I would like to say a few words now about why I believe the Senate should ratify this important treaty. As in the case of previous arms control agreements, each Senator must ask himself or herself the following series of questions: Is U.S. national security enhanced by Senate ratification of the CTBT? Is this nation better off with the CTBT? Will Senate ratification of CTBT lead to a safer world for our children?

In my view Mr. President, the answer to each of these questions is an un-

equivocal, unqualified yes for one simple, straightforward reason: a world with fewer countries possessing nuclear weapons is a safer, more secure world for our national security interests, our nation and our children. Senate ratification of CTBT will help us achieve just such a world.

Opponents of the treaty raise two issues: can we verify that other nations are complying with the treaty and would U.S. compliance with the treaty permit this nation to maintain a safe and reliable nuclear deterrent? On the first issue, opponents assert that it is impossible to verify a prohibition of all nuclear tests. Mr. President, let me state now that they are absolutely correct on that point. The intelligence community has confirmed that neither the United States nor the International Monitoring System that would be established under CTBT would ensure the detection of every single nuclear explosion, regardless of size and location.

However, this feature is not unique to CTBT. No arms control treaty is 100 percent verifiable. In just the last two decades, the Senate has ratified numerous treaties knowing full well at the time that it would be possible for a country to successfully skirt one provision or another for some period of time or another. The standard for the Senate on previous treaties and the standard we should apply to this treaty is "effective" verification. In the case of CTBT, effective verification means we will be able to detect, with a high degree of confidence, any tests that could undermine our nuclear deterrent. After examining the information and analysis provided by our intelligence community, our senior military leaders have testified that we can effectively verify this treaty.

Furthermore, with or without CTBT, we need to monitor the nuclear testing activities of other countries and will face the exact same problems people are assigning exclusively to CTBT—with one major difference. In a world of CTBT, the United States would have additional tools at its disposal to determine what has happened. The treaty would permit us to have access to data collected at any of the 321 monitoring sites established as part of the CTBT's International Monitoring System. Under the treaty, we will also be able to conduct on-site inspections of facilities when we suspect questionable activity has occurred. These are resources available to us only if we ratify CTBT.

As for the safety and reliability of our existing nuclear weapons, I am convinced that the science-based stockpile stewardship program will permit us to preserve our nuclear deterrent without testing. I acknowledge up front that this program, for which we are spending \$4.5 billion annually, is still evolving and it will be a few more years before we will know for certain its effectiveness. However, critics must also acknowledge three other facts.

First, our nuclear weapons are safe and reliable today and are likely to remain so for another decade—with or without a stockpile program. Second, although not fully up and running, the stockpile stewardship program has already demonstrated its viability. Although we stopped testing nuclear weapons seven years ago, for the past four years the Department of Energy has been able to certify that our nuclear stockpile is safe and reliable. In order to make this certification, the Department has relied in part on data generated by the early phases of the stockpile stewardship program. Third, the President submitted, and I strongly support, a condition to the treaty that would permit the United States to withdraw from the treaty and resume nuclear testing if we have anything other than the highest confidence in the safety and reliability of our nuclear weapons.

Having said all of this, I would like to raise another important issue today. Regardless of where members stand on the merits of the CTBT, I think there are two things every member of this body should agree upon. The process of treaty ratification is one of the most important responsibilities our founding fathers vested in the United States Senate. In the course of this nation's history, the Senate has never taken this responsibility lightly. It would be a mistake to do so now. Second, it is hard to imagine a treaty with more significant ramifications for our national security for decades to come than the treaty before the Senate today. In the few brief days that this issue has been before us, I have heard senior Senators, members who have cast thousands of votes, state that their vote on CTBT could well be one of the most consequential of their Senate careers. I agree with that assessment.

Unfortunately, we are on the verge of ignoring these two truths. For some unknown reason, the CTBT has become a political football in a high stakes, highly partisan debate. It appears that some are seeking to score political points instead of carefully weighing this nation's national security interests and our role and responsibilities in the world. If politics should stop at the waters' edge, so too should it stop at the door to this chamber when we are deliberating treaties with such tremendous national and international ramifications.

Instead, after over 2 years of inaction, the Senate now finds itself locked in a sprint to a vote that is equally unfair to both the opponents and proponents of this treaty. No member of this body can truly believe he or she has all the information needed to render such a momentous decision. No member can truly state that the Senate has lived up to the founding fathers' expectations of how this chamber should conduct itself when giving its advice and consent on treaties. No member can really assert with a clear conscience that this was a fair and thorough process for dealing with any issue, let alone one of this magnitude.

Proceeding before we have given full airing to the numerous and complex issues surrounding the CTBT is unfair to the Senate, unfair to our national security and unfair to the American people. Before we begin the calling of the roll asking where we stand on this treaty, we should all take a step back and give ourselves time to study these issues. For the good of our nation's security and Americans for generations to come, I ask members on both sides of the aisle to join me in this effort.

LEGISLATIVE SESSION

Mr. WARNER. Mr. President, I ask unanimous consent that the Senate resume legislative session.

The PRESIDING OFFICER. Without objection, it is so ordered.

AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION, AND RELATED AGENCIES APPROPRIATIONS ACT, 2000—CONFERENCE REPORT

Mr. WARNER. I ask the Chair to report the pending business.

The PRESIDING OFFICER. The clerk will report.

The legislative clerk read as follows:

A conference report to accompany H.R. 1906, making appropriations for Agriculture, Rural Development, Food and Drug Administration, and Related Agencies for the fiscal year ending September 30, 2000, and for other purposes.

The Senate resumed consideration of the conference report.

CLOTURE MOTION

Mr. WARNER. Mr. President, I send a cloture motion to the desk.

The PRESIDING OFFICER. The cloture motion having been presented under rule XXII, the Chair directs the clerk to read the motion.

The legislative clerk read as follows:

CLOTURE MOTION

We the undersigned Senators, in accordance with the provisions of rule XXII of the Standing Rules of the Senate, do hereby move to bring to a close debate on the conference report to accompany H.R. 1906, the Agriculture appropriations bill.

Trent Lott, Thad Cochran, Tim Hutchinson, Conrad Burns, Christopher Bond, Ben Lighthorse Campbell, Robert F. Bennett, Craig Thomas, Pat Roberts, Paul Coverdell, Larry E. Craig, Michael B. Enzi, Mike Crapo, Frank Murkowski, Don Nickles, and Pete Domenici.

MORNING BUSINESS

Mr. WARNER. Mr. President, I ask unanimous consent that the Senate proceed to a period of morning business, with Senators permitted to speak for up to 10 minutes each, with the exception of the distinguished Senator from West Virginia, who will take such time as he may require to deliver a very important address to the Senate.

The PRESIDING OFFICER. Without objection, it is so ordered.

KEEPING ALCOHOL OFF CAMPUS AND ON THE SHELF

Mr. BYRD. Mr. President, over the years, the culture of college has gradually changed from one of academics and concentrated study to one consumed with partying. Gathering at the library with classmates to prepare for an exam has taken a back seat to sitting around swilling beers at keg parties or ordering a round of shots at the closest bar.

Sadly, the process does not always begin in college. Often times, experimentation with alcohol begins in high school, or even earlier. Large numbers of young people are drinking. According to the 1998 Monitoring the Future Study conducted by the University of Michigan, approximately thirty-three percent of high school seniors, twenty-one percent of tenth graders, and eight percent of eighth graders reported being drunk at least once in a given month. Yes, Mr. President, drunk.

With such startling statistics at the pre-college level, it has become increasingly important for institutions of higher education to take an even more active role in informing and educating highly impressionable, yet extremely vulnerable, college freshmen about the many dangers of this practice. Last year, I added a provision to the Higher Education Act Amendments of 1998 to establish a National Recognition Awards program to identify a select number of colleges and universities with innovative and effective alcohol and drug prevention programs in place on campus. Under the program, each award recipient receives a grant ranging from \$40,000 to \$75,000 to assist in the continuation of its important efforts. I am pleased that I was able to obtain \$850,000 in the Senate's Fiscal Year 2000 Departments of Labor, Health and Human Services, Education, and Related Agencies Appropriations bill to continue funding for this important initiative.

The U.S. Department of Education has recently named seven colleges and universities as recipients of this first-ever grant award. Mr. President, it is encouraging to know that institutions of higher education from all corners of the country are taking aim at the problem of alcohol abuse among our nation's youth through new and creative approaches.

The six recipients of this award include Bowling Green State University at Bowling Green, Ohio; Hobart and William Smith College at Geneva, New York; the University of Arizona at Tucson, Arizona; Pennsylvania State University at University Park, Pennsylvania; the University of Northern Colorado at Greeley, Colorado; the University of Missouri at Columbia, Missouri; and Utah State University at Logan, Utah. The Bowling Green State University Peer-Based Misperception program, for example, is designed to change attitudes, behaviors, and the campus social environment with an emphasis on first-year students, mem-

bers of Greek fraternal organizations, and athletes. This program incorporates small group survey research to uncover and dispel misperceptions among peer groups such as a sorority, fraternity, athletic team, or members of a residence hall. Award funds will be used to continue the program, to implement it at other institutions, and to reduce the overall binge drinking rate.

Pennsylvania State University has been recognized for its alcohol-free "HUB Late Night" program, a model alternative activity program offering students multiple forms of free entertainment as a means of curbing high-risk drinking. The goals of the program involve delivering quality entertainment, providing a variety of alcohol-free programs for a diverse student body, encouraging student involvement in designing and implementing programs, and increasing awareness of the program. Approximately 71 percent of participants reported that participation in this program resulted in less drinking for themselves and for other students.

I am pleased that a higher education institution in my state, West Virginia University (WVU), has adopted an approach similar to that at Pennsylvania State University in addressing alcohol abuse among students. West Virginia University recently created the WVU All Night program which each Thursday, Friday, and Saturday night offers students concerts, games, movies, free food, and study rooms as attractive alternatives to bars and nightclubs. According to WVU President David Hardesty, the program has been a great success from the start, attracting an average of 4,000 students each Thursday, Friday, and Saturday night.

While this grant program will certainly serve these seven schools well in providing them with the means to administer and expand their prevention programs, it is my true hope that this grant program will span far beyond dollars and cents. Soon, the Department of Education will be producing a publication highlighting these model programs, and will make this document available to high school counselors throughout the nation. When thinking about college, it is important for students and parents alike to be informed about good alcohol and drug prevention programs. This document will serve as an important tool in helping students and their parents to make even wiser decisions about where to pursue their college education.

Moreover, the grant recipients of this year's award ought to serve as models to all higher education institutions throughout the country. Each August, many schools face the formidable challenge of determining how best to address the use and abuse of alcohol by underage students. With these model schools, new information will be available to schools still grappling with alcohol abuse problems. I encourage all Senators to pass along this information to institutions of higher education in their respective states.